JOURNAL OF SACFIRE

Volume 2 Issue I

Cover page by;
Dr. RMTN Rathnayake
Department of Accountancy,
Wayamba University of Sri Lanka.

ACKNOWLEDGEMENT

EDITORIAL BOARD

IMPACT OF THE FINANCIAL LITERACY AND HOUSEHOLD INDEBTEDNESS: EVIDENCE FROM HOUSEHOLD IN GAMPAHA DISTRICT

Dewthilini, P.A.D.N.[1], Perera, D.A.M.[2]

[1,2]*Department of Accountancy, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka, Sri Lanka*
[1]*dewthilininirmala@gmail.com,* [2]*aminda@wyb.ac.lk*

ABSTRACT

In the present scenario, Financial Literacy issues are being addressed globally and measures to increase the population's knowledge in a similar trend will be very useful. Consequently, this impact carries away a conviction of the world of finance to get off from careless choice of financial products. This study aims to identify the impact of financial literacy on the Household indebtedness in Gampaha District in Sri Lanka. There is a limited number of research related to Financial Literacy and Household Indebtedness conducted in Sri Lanka but still none of them talk about the relationship between Financial Literacy and Household Indebtedness in Sri Lanka. Hence, we have selected this study. We have developed the model to evaluate those two variables. To measure Financial Literacy, we have identified the most significant three factors Financial Knowledge, Financial Attitude and financial behaviour. Then, to measure household indebtedness, we used information about household debt, such as household loan defaults and how much debt is paid off compared to monthly income. We selected the realism philosophy to find out the relationship between the level of Financial Literacy and Household Indebtedness in Sri Lanka. Realism research philosophy relies on the idea of independence of reality from the human mind. The results of the data analysis and the comments on the results using the appropriate method. All the data collected from the respondents were interpreted and summarized by using the SPSS software. Finally, the researcher found there is a negative association since a negative correlation was found between financial literacy and household indebtedness in Sri Lanka. This study can be replicated by using different proxy measures, extending it cross-country, and increasing the sample size and duration of the data to see if the results differ from the current study.

Keywords: Financial Literacy, Household Indebtedness, Financial Knowledge, Financial Attitude, Financial Behaviour

1. INTRODUCTION

"Financial Literacy is a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions" (Remund, 2010). According to Abeysuriya, he stated that people have all levels of ability to reach the financial system of a country through financial inclusion but it can only be

effective if the individuals have much awareness of the risks that they are going to take and are sensible more efficient and build a pool of funds for future use or borrow money with a clear understanding of the borrowing costs and their potentiality to settle up the borrowings within a reasonable period (Abeysuriya, 2018) Organization for Economic Co-operation and Development (OECD) has raked up three basic comprehensive dimensions on Financial Literacy. They are Financial Knowledge, Financial Behaviour and Financial Attitude (Atkinson & Messy, 2012). Previous studies have found that financial literacy has significant effects on decisions involving debt. According to research by Lusardi and Mitchelli, less educated consumers frequently engage in high-cost transactions, paying more fees and borrowing money at high costs. (Annamaria Lusardi, January 2007). Those individuals also tend to have higher debt weight and a higher probability of credit default due to the lack of Financial Literacy. Gathergood and Disney studied the behaviour of UK households to identify the relationship between Finance Literacy and consumer credit portfolios and found that consumers with poor Financial Literacy hold high-cost credit products compared to consumers with higher literacy (Gathergood & Disney, 2011). As well as Lasantha and Pathirawasam have found that lower Financial Literacy may imply that individuals are susceptible to higher credit-related risks (Lasantha & Pathirawasam, 2015). In Sri Lanka, low Financial Literacy has led to a high level of indebtedness and people tend to make risky investments such as in pyramid schemes. This occurred as a result of the spread of unethical or illegal groups operating in Sri Lanka beyond the bounds of the law. They do not consider the long-term effects of their choices; they just consider the immediate necessities. People look for more money when they are having financial difficulties. They think that earning more money will solve their current problems, but they are unaware that their lack of financial literacy is the real source of their issues. Therefore, making such choices will cause individuals to experience more financial hardship (Abeysuriya, 2018). My research is mainly based on identifying the impact of Financial Literacy on household indebtedness in Sri Lanka. And after that We are going to suggest some strategies to overcome household indebtedness in Sri Lanka

Research Questions

The research project will seek to explore and investigate the central problem of, why household indebtedness in Sri Lanka is high, although it has a higher financial literacy than other countries show a negative relationship between Financial Literacy and indebtedness. The main questions of this research are based on.

1) What is the current relationship between Financial Literacy and Household Indebtedness and the impact of Financial Literacy on Household Indebtedness?

2) What are the factors affecting household indebtedness in Sri Lanka?

3) What are the suggestions to improve policy strategies to overcome household indebtedness?

Research Objectives

- To determine the relationship between financial literacy and household indebtedness

- To determine the factors affecting household indebtedness in Sri Lanka

- Suggest decisions and strategies in order to reduce household indebtedness in Sri Lanka

Significance of the Study

Different research studies have found different relationships among Financial Literacy and Household Indebtedness. According to the Sri Lankan context we have found sources that explain that Sri Lanka has a positive relationship between financial literacy and indebtedness but from these sources, we cannot come to a conclusion that Sri Lanka has a positive relationship between financial literacy and household indebtedness. Consequently, from my research study, we are looking to identify the relationship between financial literacy and household indebtedness. Also, we try to find new things/evidence of financial literacy and household indebtedness in Sri Lanka. Nowadays Household Indebtedness is a major issue in Sri Lanka. In recent years public sources proved that household indebtedness has gradually increased compared to previous years. There are many factors which are affecting indebtedness. After doing our research study We can identify factors that impact household indebtedness and also, can give suggestions to improve policy strategies to overcome household indebtedness in Sri Lanka. These policies will help the government, policy makers and future researchers to get an idea to give solutions for household indebtedness. To give suggestions we have to take ideas about household indebtedness from policy makers in Sri Lanka. Finally, we can tell that this research gives solutions and understanding for one of the main issues in Sri Lanka.

2. LITERATURE REVIEW

The term Financial Literacy has been defined by a number of scholars and as a result, it has various theoretical definitions which are seen by some authors in terms of general literacy and essential skills, where Financial Literacy is defined as the ability to acquire and use financial information, as measured through comprehension and performance of a financial task (Mason & Richard, 2000). Hence in conclusion, this definition states that financial literacy is the application of more general literacy, numeracy, problem-solving, and other key essential skills in a personal finance environment rather than existing as a distinct set of talents (Murray, 2013). This conveys that Financial Literacy or capability includes specific or certain general skills or abilities a person holds. Among those numbers of different definitions, some scholars have touched on several dimensions of Financial Literacy. As an example, John Gathergood has defined Financial Literacy as, "Consumer understanding of financial concepts and ability to correctly interpret financial data" (Gathergood & Disney, 2011) and according to Lusardi and Mitchell, defined, financial literacy is the ability to perform calculations involving interest rates and the understanding of fundamental financial investing principles like inflation and risk diversification.

(Lusardi, 2011). Both of them implied that Financial Literacy is occupied with knowledge of financial concepts. Likewise, Noctor et al. have defined Financial Literacy as the ability to make informed judgments and make effective decisions regarding the management of money (al, 1992). Importantly, David L. Remund has categorized those various definitions of Financial Literacy into five main dimensions after referring to many definitions as, 1) knowledge of financial concepts, (2) ability to communicate about financial concepts, (3) aptitude in managing personal finances, (4) skills in making appropriate financial decisions and (5) confidence in planning effectively for future financial needs. He has distinctively defined Financial Literacy and the roots of that definition have stretched on the importance of ability, and it speaks to knowledge, skills, and life changes. Therefore, we have chosen my operational definition of, Financial literacy as " A measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through the appropriate, short-term decision making and sound, long-range financial planning, while mindful of life events and changing economic conditions" (Remund, 2010) When in comparison with the each of definitions that We have collected by referring various past types of research, most of the definitions are covering at least one of these above dimensions and also many of them have focused on the aspects like, awareness, knowledge, skill, attitude, understanding and behaviour on financial concepts inside their definitions. Consequently, it is the fact that those definitions are incorporated and linked with those dimensions. In other words, those dimensions are integrated with the core of those definitions. Therefore, after considering those perspectives, we selected this as the most appropriate operational definition to carry on my study as it contains all the necessary aspects of the term, Financial Literacy rather than not sticking to one or two dimensions like the other definitions that We have gathered.

Factors Affecting Financial Literacy

Scholars who have done research regarding Financial Literacy also have found some specific factors that are affecting Financial Literacy. C. A., Robb, and Woodyard A. have described "Personality" as a factor that affects Financial Literacy. Robb and Woodyard and also C. A., Robb, and Woodyard observed that "level of financial knowledge" is another factor (Robb & Woodyard, 2011). When comes to Financial Literacy some of the driving factors are numeracy and the emotional attitude towards numbers thus, becoming financially literate resides in the ability to understand numbers and having an emotional attitude towards numbers (Lind, Thérèse; KennySkagerlund, et al, 2018). Moreover "economic turbulence" Beckmann (2013) Savings behaviour Stix (2011), and Planning behaviours Lusardi and Mitchelli (2007) can be taken as another factor, and apart from that some scholars have found that there are some demographic factors that affect Financial Literacy (Lusardi & Mitchell, 2007). Moreover, according to previous researchers, financial knowledge, financial attitude, and financial behaviour which are the dimensions of financial literacy are affected by the socio-economic and demographic factors like age, gender, income, and family background of an individual (Lusadi A. M., 2010); (Lusadi A. M., 2011); (Allgood & walstad, 2013). Similarly, Shirantha Heenkenda also investigated that there is a strong relationship between the financial literacy of

individuals and socio-economic-demographic characteristics. This study further explained that financial literacy differs from person to person based on levels of income, knowledge, education, etc.

Current research related to Financial Literacy

Financial Literacy can be identified as a vital necessity for economies that are rapidly developing in parallel with the developed economies to enhance the financial well-being of their populations. Consequently, it is a fact that Financial Literacy is a way of accelerating the financial well-being of a person. Alwee Pg Md Salleh showed that households who have a sense of financial literacy can handle day-to-day financial tasks, deal with financial emergencies and even drive through the clutches of poverty. Lusardi and Mitchell (2007) and Pg Md Salleh (2015) who have done a number of researches regarding financial literacy, reported that financial literacy owns an integral component termed, debt literacy since it integrates the potentiality of taking simple decisions regarding debt and relating interest compounding knowledge to real-life situations (Neha & Singh, 2017).

Household indebtedness

We have found several definitions for the term "Indebtedness" and some researches have defined it as "Over-indebtedness". It is a fact that mostly they have focused on the concept of over-indebtedness. But even when we are analysing those definitions, we can see considerable differences in those definitions since they have focused on different levels of indebtedness when defining the term indebtedness. Consequently, we think that it is more suitable to stick to this definition of indebtedness which is defined as "Households' existing and expected resources are insufficient to meet its financial commitments without lowering its standards of living" (Commission, 2010).

Relationship between Financial Literacy and House hold Indebtedness.

Furthermore, they have mentioned that usually, the people who have higher financial literacy have debt literacy Lusardi and Tufano (2009) with the correct understanding of the concept of interest compounding and the time value of money (Atkinson & Messy, 2012), (Rooij, Lusardi, & Alessie, 2011,) (Lusardi, 2011). When considering past research, it is important to highlight that a low level of financial literacy is a prevailing phenomenon in debt literacy which impacts household indebtedness. The term household indebtedness has been defined in various ways by the past scholars. More importantly, we can see a relationship between Financial Literacy and Household Indebtedness which has turned out to be the underlying basement for our study. By averring it, Richard Disney and John Gathergood have found that Financial Literacy has a very strong effect on self-reported financial over-indebtedness by using a range of measurable tests (Gathergood & Disney, 2011). For instance, consumers who have low financial literacy usually obtain high-cost credit cards and they get over debt (Lusardi & Tufano, P, 2009). Likewise, some studies investigated that people who have better financial knowledge can make the best financial decisions. For example, Lusardi and Mitchelli (2007) found that people with higher financial knowledge are able to plan for retirement. Moreover, according to Disney and Gathergood (2013), people with low levels of financial literacy have a tendency to underestimate the cost of credit and are therefore more likely to accrue debt. As a

result, families with lower levels of financial literacy typically have higher debt loads and may even go overboard with their debt. When people lack the ability to discriminate between a safe investment and one that could be quite dangerous, they become subject to the variety of financial goods available on the market and are more prone to experience financial issues like debt and default. (Lyons, 2004). In conclusion, low levels of financial literacy may impair people's ability to save money and accumulate wealth (Lusadi A. M., 2010).

3. METHODOLOGY

The study's research technique is described in this section. This section will also describe the research approach, research strategy, data collection methods, data collection technique, population and sampling, data analysis, and hypothesis testing.

Research Philosophy

We selected the realism philosophy to find out the relationship between the level of Financial Literacy and Household Indebtedness in Sri Lanka. The research philosophy of realism is based on the notion that reality is independent of the mind.

Research Approach

This study mainly focused on finding the association between the level of financial literacy and household indebtedness of the respondents in the Gampaha District in Sri Lanka by using a deductive research approach. Continuously rising household indebtedness is one of the burning issues currently faced by Sri Lankan households Sri Lanka has a considerable level of Financial Literacy compared to other South Asian countries while other countries show a negative relationship between financial literacy and household indebtedness. This section will analyse how our independent variable and dependent variable are going to integrate and what methods and techniques that will be used to carry out to achieve the main objectives of this study

Population and Sample

The population of the study is indebted households in Gampaha District. According to the Department of Census and Statistics, there are 1 295 316 indebted households in Gampaha District as of 2016 and We will be selecting respondents only from J-Ela, Negombo, Kadana, Katunayake, Minuwangoda cities in the Gampaha District limit as our population study due to the limitations of time and accessibility with corvid-19 situation.

We are planning to gather information from the National Housing and Development Authority in Gampaha and out of their information We will be selecting 483 indebted households for the sample size. Convenience sampling will be used to select the 483 indebted households from the National Housing and Development Authority Gampaha.

Research Strategy

The data will be gathered by structured and pretested questionnaires. An assessment of the available surveys revealed that they were comprehensive and covered financial behaviour, financial attitude, and financial knowledge. All three topics should be covered in a nationwide survey, and the questionnaire should be created using

questions from past polls. Particularly helpful are those that underwent considerable development and testing to inform their design, such as the United Kingdom (FSA baseline survey), Statistics Canada, Ireland, and the Netherlands CentiQ. In order to select key questions that would enable the collecting of similar data, we also looked into the questions asked in each of these three subject areas in some depth in past surveys.

Based on the assumed impact of independent variables on household indebtedness, the following conceptual framework was developed.
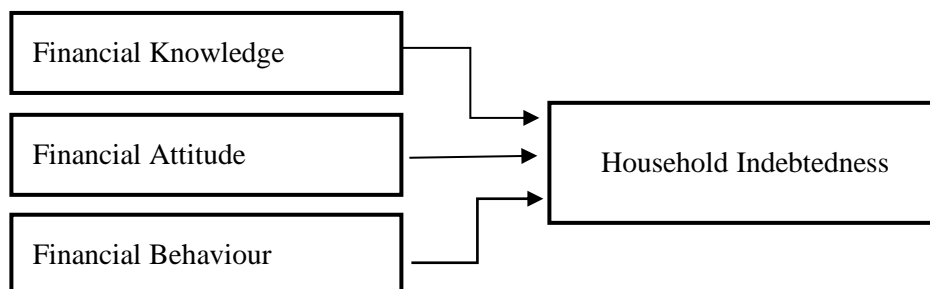
Figure 1. Conceptual Framework

Operationalization and Hypothesis

H1: There is a statically significant negative impact of Financial Knowledge and household indebtedness

H2: There is a statically significant negative impact of financial Attitude and household indebtedness

H3: There is a statically significant negative impact of financial behaviour and household indebtedness

Data Collection Method
The researcher used single data collection techniques and corresponding analysis procedures. The researcher selected a mono method for the research.

Data Analysis Methods
This research uses a deductive approach since my problem statement is based on the conclusions given by past researchers regarding the relationship between Financial Literacy and Household Indebtedness. Therefore, this study mainly focuses on finding the relationship between two variables. One is Financial Literacy and the other variable is Household Indebtedness.

We have to use both quantitative and qualitative methods to analyse the gathered data. Quantitative data will be statistically analysed using the SPSS software platform

Interpretation of result
• Correlation coefficient we are going to use the Correlation coefficient to measure the strength of the relationship between Financial Literacy and Household Indebtedness

• Regression Analysis will carry out the regression analysis to determine how the changes in Financial Literacy are associated with the changes in Household Indebtedness. As well as to measure the variation between those two variables multiple linear regression analysis will be carried out.

4. FINDINGS AND DISCUSSION

Reliability analysis was used to measure the internal consistency of the items which were used to measure respective variables.

Table 1. The Cronbach's Alpha Value

	Alpha Cronbach's	No of Items
Financial knowledge	.776	6
Financial Behaviour	.700	8
Financial Attitude	.711	8
Household Indebtedness	.651	5

KMO statistics were used to measure the sampling adequacy. As per the results in Table 02, the KMO statistic is 0.830 (above 0.5), which indicates that the selected sample size is sufficient to continue the analysis.

Table 2. Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	3051.911
	Df	276
	Sig.	.000

Correlation Analysis

Researchers used Pearson Correlation Analysis to measure the relationship between dependent and independent variables. The findings indicate that the correlation between household indebtedness and financial literacy is statistical significance at the 0.01 level.

Table 3. Correlations Analysis

Independent Variable	Dependent Variable	P- Value
Financial knowledge	-.022	0.000
Financial Behaviour	-.021	0.000
Financial Attitude	-.036	0.000

Significant negative relationships were found between financial knowledge (r = -0.020, p<0.01), financial behaviour (r = -0.021, p<0.01), financial attitude (r = -0.036, p<0.01), and household indebtedness. These findings support all three hypotheses of this study.

5. CONCLUSION(S)

The amount of financial literacy—or what (Lusardi & Tufano, 2009) refer to as "debt literacy"—in the context of household debt in Gampaha has been studied in this article. A significant regular survey of the debt position of a representative sample of working-age households was supplemented with specialized questions on numerical aptitude and other background traits.

The findings draw attention to causes for worry. Although it appears that most people have some very basic financial knowledge, a sizable section of the population in every nation lacks comprehension of other, more common financial concepts like compound interest and diversification. Additionally, there is some evidence that some responders are overconfident because they have submitted wrong answers rather than coming clean about their ignorance.

Analysis of the relationship between behaviour and household indebtedness suggests a negative association: when behaviour is positive, indebtedness decreases. This does not prove causation, and much more research is needed to understand the relationship between these variables. It may be that improved behaviour leads to more active participation in financial markets and less borrowing behaviours.

Additionally, there is a negative correlation between attitudes and household debt. People who are more likely to be engaging in financial behaviour are those who have a good outlook on the long term as opposed to those who favour the short term. Further research is necessary to understand this link.

Inequality in opportunity may be keeping people from becoming more financially savvy, according to sociodemographic analysis. Particularly, low levels of education and income are linked to lower levels of financial literacy, indicating that some groups may already be shut out of possibilities for learning and participation in activities that might enhance their financial well-being.

The analysis' findings offer data from which the participants may pinpoint needs and gaps and create the best national policies and plans. This pilot project is meant to pave the way for a regular data gathering, analysis, and reporting program

REFERENCES

Allgood, S., & Walstad, W. B. (2016). The effects of perceived and actual financial literacy on financial behaviors. *Economic Inquiry*, *54*(1), 675-697.

Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.

Gathergood, J., & Disney, R. F. (2011). Financial literacy and indebtedness: New evidence for UK consumers. Available at SSRN 1851343.

Garg, N., & Singh, S. (2017). A study on socio-demographic factors affecting financial literacy with specific reference to Ph. D. Scholars. *Asian Journal of Research in Banking and Finance, 7*(5), 107-117.

Kibui, M. (2013). Financial literacy and financial management of the youth enterprise development fund in Konoin Constituency Kenya (Doctoral dissertation, University Of Nairobi).

Lusardi, A., & Mitchell, O. S. (2007). Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics, 54*(1), 205-224.

Lasantha, S., & Pathirawasam, C. (2015). Financial Literacy and Credit Choice of Consumer Credit Users in Sri Lanka. International Conference on Business and Information (ICBI). Retrieved from http://repository.kln.ac.lk/handle/123456789/10548?show=full

Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs, 44*(2), 358-380.

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of Pension Economics & Finance, 10*(4), 497-508.

Lusardi, A. (2011, October). Journal of Pension Economics & Finance, 10(4), pp. 497 - 508. doi:https://doi.org/10.1017/S1474747211000448

Lusardi, A., & Mitchell, O. S. (2007). Financial literacy and retirement planning: New evidence from the Rand American Life Panel. *Michigan Retirement Research Center Research Paper No. WP*, 157.

Lusardi, A., & Tufano, P. (2009). Teach workers about the perils of debt.

Mason, C. L. J., & Wilson, R. M. (2000). Conceptualizing financial literacy (business school research series. Paper 2000: 7). UK: Loughborough University.

Remund, David L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs, 44*(2). 276-295.

Robb, C. A., & Woodyard, A. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning, 22(*1).

Skagerlund, K., Lind, T., Strömbäck, C., Tinghög, G., & Västfjäll, D. (2018). Financial literacy and the role of numeracy–How individuals' attitude and affinity with numbers influence financial literacy. *Journal of behavioral and experimental economics, 74*, 18-25.

Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics, 101*(2), 449-472.

HOW DOES FINANCING DECISION AFFECT SHAREHOLDER VALUE CREATION? SRI LANKAN EVIDENCE

Herath, H.M.S.K.H.[1], Wanigasekara, W.A.D.K.J.[2], Deshika, N.P.T.[3]

[1,2,3]*Department of Accountancy, Faculty of Business Studies & Finance, Wayamba University of Sri Lanka*
[1]*sanduniherath1996@gmail.com,* [2]*kaushalya@wyb.ac.lk,* [3]*deshika@wyb.ac.lk*

ABSTRACT

This study is designed to examine the impact of financing decisions on shareholder value creation. Under the financing decision, researchers mainly consider the financial leverage. Maximizing shareholder wealth is one of the important issues for the management of listed companies. According to the study, market value added is one of the dependent variables and interest coverage time, debt-to-equity ratio and debt-to-assets ratio are the independent variables. The study is mainly based on the two listed sectors under the Colombo Stock Exchange in Sri Lanka, which are the food, beverage, and tobacco sectors and the consumer service sector. Data was collected from 195 annual reports which are related to 39 food, beverage and tobacco sector companies and 155 annual reports which are related to 31 consumer service sector companies listed in the Colombo Stock Exchange for five years from 2016/17 to 2020/21. The researchers used correlation analysis to measure the relationship between the variables and descriptive statistics, Regression was also used to analyse the data. According to the correlation analysis of the food, beverage and tobacco sector, there is a positive significant relationship between debt-to-equity ratio and market value added. In addition to that, there is a positive relationship between the interest coverage time and debt-to-assets ratio with market value added in the consumer service sector. Nevertheless, all the independent variables do have not any significant relationship with market value added in the consumer service sector. The findings of this study indicate a significant positive impact of debt-to-equity ratio on market value added in the food, beverage and tobacco sector companies. There is no significant impact of the debt-to-assets ratio and interest coverage time on market value added in the food, beverage and tobacco sector. Further, consider the consumer service sector company's debt to assets ratio and interest coverage time period have a significant positive impact on market value added. Conversely, there is an insignificant positive impact of the debt-to-equity ratio on the market value added of consumer service sector companies in Sri Lanka. The relationship between capital structure and firm value has been the subject of considerable debate. Indeed, the Pecking Order Theory found contradictory predictions in terms of the impact of the financial structure on shareholder value creation.

Keywords: Debt to Assets ratio, Debt to Equity ratio, Interest coverage time and Market Value Added

1. INTRODUCTION

A financing decision refers to the decision that firms are required to take regarding what amount of proportion of equity and debt capital to have in their capital structure. These decisions play a very crucial role in financing its assets, investment decisions, and shareholder value creation (Mehta, 2020). Nagalakshmi et al, (2015) point out that a financing decision entail selecting an appropriate financing mix by way of a combination of debt and equity in a company's capital structure. Companies can be financed entirely by equity or by debt or a combination of both. The debt and equity mix in a company is referred to as capital structure. Agbai, (2013) asserts that a firm's financing policy may be to choose from alternative sources, which may be internal or external. Carlos et al, (2015) discuss that sound financing decisions enable businesses to create economic value. Conversely, unsound financing decisions destroy value which threatens survival and the continuity of an enterprise

Furthermore, the financing decision can be divided into several parts. This study has examined how financial leverage is related to the financing decision. According to the financing decision, a company is expected to decide what proportion of equity and debt capital to have in its capital structure. El-Sayed Ebaid, (2009) suggested that generally efficiency of the foremost hotels in India is checked by the role of financing decisions showing that financial leverage works only for a few companies. Bhargav Pandya, (2016) examined a company that can be financed its investments by debt and equity, and a company may also use preference shares. The ratio of the fixed charge sources of a fund such as debt and preference shares to owners' equity in the capital structure is described as financial leverage. The study mainly focuses on identifying the impact of financial leverage on shareholder value creation. There were several studies on shareholder value creation and financing decisions have been carried out all over the world including in Sri Lanka. Pandya, (2016) study analysed the impact of financial leverage on market value and added 197 companies classified that are listed on the Bombay Stock Exchange. The researcher has considered debt equity ratio, debt ratio and interest coverage ratio as independent variables and Market Value Added as the dependent variable. The study has shown that the interest coverage ratio is the most significant variable to impact on market value added. Also, the equity ratio and the debt ratio are considered to be statistically significant and related to the market value added of sample companies in India. In addition to that, very few studies on financial leverage and shareholder value creation related to the Sri Lankan context consider the other researchers' studies that have investigated the listed companies.

The paper purposely analyses the financial leverage impact on market value added. The research findings accommodated managers in assessing how different financing decisions impact the value of the firm in general and specifically on the creation of shareholder value. It will help to act as a guide in planning for the ideal combination of a financial decision as well as identifying and selecting strategies that create the highest value for the shareholder. The study findings provide insight to fund providers such as the consumer service sector and food, beverage, and tobacco sector in understanding the financial behaviour of the listed companies in Sri Lanka. J. & M., (2014) investigated the 6 quoted private Sri Lankan banks for the period 2011-2013.

They examined the association between Economic value added, Market value added and leverage. This research has helped to identify how the food, beverage and tobacco sector and the consumer service sector are activated to impact financial leverage on shareholder value creation.

2. LITERATURE REVIEW

There have been several studies conducted to study the linkage of financial leverage and shareholder value creation over the last three and a half decades. These prior studies have concluded differing outcomes. In this section, the independent variables and dependent variables are clearly explained. Some studies have shown a significant relationship between financial leverage and shareholder value creation, whereas some have shown no linkage between financial leverage and shareholder value creation. Selected studies reviewed for conducting this study are as under.

Bei & Wijewardana, (2012)examined financial leverage, firm growth and financial strength in listed companies in Sri Lanka. The study mentioned financial leverage is one of the most influencing factors in determining financial growth. In addition to that research mentioned that capital structure studies have been done to examine the relationship between observed Financial Leverage and the value of the firm and share prices. The researcher investigated 62 firms trading in the Colombo exchange out of the 13 sectors. The required data were collected from published annual reports, the Handbook of listed companies in the Colombo Stock Exchange and the annual report of the Central Bank of Sri Lanka. The study has been used to analyse the data by the regression model. The final output of this study found financial leverage in the Sri Lanka context to be positively related to the growth.

Sharma et al., (2015) investigated shareholder value creation and measuring in Indian companies. The study was considered a sample of 30 Sensex companies. The study was based on secondary data. Those companies represented ten industrial sectors for a period of five years 2009-2013. The study has taken the capital structure and dividend as an independent variable. The capital structure is determined by the debt-equity ratio. And shareholder value creation dependent variable. Also, this study has used regression analysis techniques. The result of this study identified, that there is a positive impact on the companies under the economic value-added method. As per the research, the debt-equity ratio (financial leverage) also positively impacts shareholder value creation. Finally, this research found that capital structure decisions have a 40 per cent impact on shareholder value creation. The industry has given the first priority to shareholders.

Vijayalakshmi and Manoharan, (2015) examined the corporate level and its impact on the economic value added and marketing value added. This study was carried out as an empirical study which impacts leverage on shareholder value creation. This study was mainly studied to reveal that leverage has a significant impact on the shareholder value creation process. And researcher has decided to get the long-term and short-term debt ratio, interest coverage ratio and financial leverage as independent variables. The study found that there is a relationship between leverage and shareholder value creation. There is an effective impact between leverage and

shareholder value creation. This study provides detailed information on how the leverage impacts the economic value added and market value added. According to De Wet & Hall (2004), South African researchers investigated industry specified determinants of shareholder value creation. This study has considered about the relationship between Economic value added, Market value added and leverage. The researchers adopted a spreadsheet model to study the relationship between leverage and shareholder value creation. In this study, researchers have tried to obtain more refined and industry specified variables to determine the value creation for the shareholder. Regarding about this study has suggested that the unique characteristics of each and every industry determine the optimal level of choices for shareholder value creation measurement. So different types of industries are based on the specialization value creation method.

Pandya, (2016) examined the impact of financial leverage on market value added. This study has considered 197 companies classified as a group listed on the Bombay Stock Exchange. The study covered financial data from the period 2010 to 2014. The study has shown that the interest coverage ratio is the most significant in depend variable to impact on market value added. Also, debt equity ratio and the debt ratio are considered to be statistically significant and related to the market value added of sample companies in India.

Alloy & Alfred (2014) investigated the 6 quoted private Sri Lankan banks for the period 2011-2013. They examined the association between economic value added, market value added and leverage. In this study has been used correlation and regression methods for the data analysis. In this research leverage and economic value added have been used as the independent variables and market value added has been used as the measure of shareholder wealth creation and it has been considered as the dependent variable. The final output of this study, there is no significant relationship between the economic value added, market value added and leverage. In the banking sector there is no significant impact on leverage and shareholder value creation and different types of industries, sectors depend on the specialized independent variables for shareholder value creation.

Atiyet (2012) carried out a study on the effect of financial leverage on shareholder value creation on French firms using secondary data from 1999 to 2005. This study used the factors that drive shareholders' wealth to determine the most factor that have an effect on shareholders' wealth. The secondary data were analysed with a regression analysis model. The study used shareholder's wealth creation as the dependent variable measured by economic value added and market value added. The independent variable of the study was debt finance which was measured by self-finance, equity finance and leverage. The study measured self-finance by cash flow from financing activities. The findings pointed out that self-financing positively and significantly favours shareholder value creation. While the leverage had a positive and significant effect on the economic value added and was negatively related to the market value added.

3. METHODOLOGY

The researchers have selected only two sectors from the listed companies in the Colombo Stock Exchange. The reason behind the selection of the two sectors because that sectors with very high debt ratios. Food beverage and tobacco sector and the Consumer service sector have been selected when looking at the high debt ratio compared with the other sectors. The population comprises 45 listed companies in the Food Beverage and tobacco sector and 35 listed companies in the Consumer service sector of CSE as of 21 May 2021 and the researcher selected 38 (based on the debt-to-equity ratio) companies from Food Beverage and Tobacco sector and 31 (based on the debt to ratio) companies from Consumer Service Sector as a sample, using a simple random sampling technique. Data was collected for the recent 5 years from 2016/17 to 2020/21. The study focuses on secondary data collected through the published annual reports of the sample.

With the help of reviewing existing studies and theories, the following model was developed to carry out the research. This study employed descriptive statistics, correlation analysis, and regression to analyse the data.
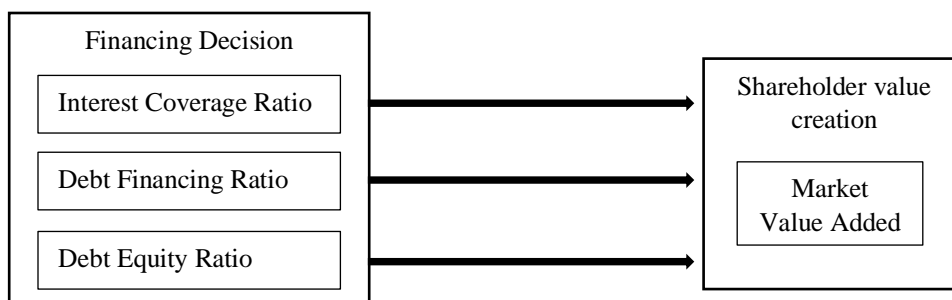
Figure 1. Conceptual Framework

The following hypotheses were formulated for the study.

H1: There is a positive impact of financing decisions on Shareholder Value Creation

H2: There is a positive relationship between financing decisions and shareholder value creation.

H1a: There is a significant impact of Debt Equity Ratio on Shareholder Value Creation

H1b: There is a significant impact of Interest Coverage Ratio on Shareholder Value Creation

H1c: There is a significant impact of the Debt Financing Ratio on Shareholder Value Creation

To test the hypotheses the following Panel regression model is developed.

$$MVA = \beta_0 + \beta_1\ IC + \beta_2\ DE + \beta_3\ DA + \varepsilon$$

4. FINDINGS AND DISCUSSION

The main objective of the study was to identify the impact of financing decisions on shareholder value creation. Under the financing decision study consider the financial leverage. As per the independent variables study selected interest coverage time, debt to equity and debt to assets ratio. The study used to analyse the panel data and the regression model to reveal the impact of financing decisions on shareholder value creation. As per the result, there is a positive impact of financing decisions on shareholder value creation in both sectors.

Table 1: Correlation Analysis for the Food Beverage and Tobacco Sector

Variable	MVA	IC	DE	DA
MVA	1.000			
IC	-0.022	1.000		
	`0.767			
DE	0.315**	-0.089	1.000	
	0.000	0.111		
DA	0.130	-0.061	0.262**	1.000
	0.073	0.166	0.000	

** Correlation significant at the 0.05 level

As per Table 1, the results of the correlation analysis showed that both debts to equity and debt to assets presented a positive, weak relationship with market value added, and debt to equity is significantly correlated with market value added at a 5% significant level. The interest coverage ratio showed no relationship with the market value added while interest coverage and debt to assets have a weak positive relationship and are significant at 0.01 level.

Table 2: Correlation Analysis for Consumer Service Sector

Variable	MVA	IC	DE	DA
MVA	1.000			
IC	0.025	1.000		
	0.752			
DE	-0.081	-0.037	1.000	
	0.319	0.649		
DA	0.050	-0.032	0.919**	1.000
	0.536	0.696	0.000	

** Correlation significant at the 0.05 level

As per the table, 2 results showed that interest coverage and debt to assets ratio have not presented relationship with market value added, and the one variable is weak and positively related to the market value added. The study met all four assumptions of regression and the results show in the following table.

Table 3: Regression Results for Food Beverage and Tobacco Sector

MVA	Coefficient	Standard error	t	p>t
IC	1.5808	7.6008	0.207365	0.8360
DE	1.4810	3.5409	4.189085	0.0000
DA	2.8909	4.0609	0.712930	0.4768
Cons	2.4909	2.5209	0.9867	0.3250

The results presented in Table 3 indicate that debt to equity has a significant positive impact while other variables are insignificant at a 95% confidence level. However, the R Squared 0.1020 indicates that financial performance and condition explained 10.20% variations of the market value added. Further adjusted R-squared indicates that there is an 8.7% impact of interest coverage, debt to equity and debt to assets on market value added.

Table 4: Regression Results for Consumer Service Sector

MVA	Coefficient	Standard error	t	p>t
IC	6888.314	4.3408	3.282286	0.0001
DE	-3.8409	25461.81	0.270535	0.7871
DA	4.5009	9.2308	-4.161139	0.0001
Cons	1.4209	1.1009	4.084167	0.0001

The results in the table 4 indicates that interest coverage and debt to assets have a significant positive impact while the variable is insignificant at the 95% confidence level. But the R squared 0.1057 indicates that financial performance and condition explained a 10.57% variation of the market value added. Further adjusted R-squared indicates that there is an 8.8% impact of interest coverage, debt to equity and debt to assets on market value added.

Table 5: Regression model summary

	Consumer Service	Food beverage
Number of observations	155	190
F- statistics	5.953984	7.043541
Problem> f	0.000	0.000
R- squared	0.105778	0.102016
Adjusted R-squared	0.088012	0.087396

Hypotheses testing

H1 - There is a positive impact of financing decisions on shareholder value creation. (As per the regression model summary Table 5)

Food Beverage Tobacco sector   Accepted

Consumer Service sector   Accepted

H2 - There is a positive relationship between financing decisions and shareholder value creation.

Both sectors have a negative and positive relationship between the financing decision and shareholder value creation

H1a - There is a significant impact of Debt Equity Ratio on Shareholder Value Creation

Food Beverage Tobacco sector   Accepted

H1b- There is a significant impact of Interest Coverage Ratio on Shareholder Value Creation

Consumer Service sector   Accepted

H1c- There is a significant impact of Debt Assets Ratio on Shareholder Value Creation

Consumer Service sector   Accepted

5. CONCLUSION

The study examined the relationship between shareholders' wealth and financing decisions of the food, beverage and tobacco sector and Consumer service sector in Sri Lanka. According to the findings of the analysis the result of the study was revealed that there is a positive impact of financing decision on shareholder value creation when consider about the food, beverage tobacco and consumer service sectors, therefore hypothesis H1 is accepted both of sectors. It was found that analysed, all three measures of financial leverage namely; debt equity ratio, interest cover and debt to assets ratio were differently related to market value added. When considering the food, beverage and tobacco sector there is a significant impact of Debt to equity on market value added. In the consumer service sector has been represented the insignificant impact of Debt to equity on Market value added. The empirical findings indicated both positive and negative relationships between independent and dependent variables. Most of the empirical findings of the correlation analysis were consistent with the results of the study while a few variables were not. Associated limitations were, that researchers only consider the influence of financial leverage over the market value added. The results of this study draw significant policy implications at micro and macroeconomic levels. Decisions related to the choice of appropriate sources of funds are crucial since they have an impact on continuous value creation and maintenance. To enhance and maintain value creation, management should aim at minimizing the weighted average cost of capital, analyse inherent risks associated with various capital and investment projects and aim at maintaining the firm's credibility. This will ensure the continuous supply of both short-term and long-term finances and boost investors' confidence in a firm's going concern. The research only examined data for five years.

REFERENCES

Atiyet, B. A. (2012). The impact of financing decision on the shareholder value creation. *Journal of Business Studies Quarterly, 4*(1), 44.

Acevedo Peña, C. G. (2015). Developing Inclusive Innovation Processes and Co-Evolutionary Approaches in Bolivia (Doctoral dissertation, Blekinge Tekniska Högskola).

Bei, Z., & Wijewardana, W. P. (2012). Financial leverage, firm growth and financial strength in the listed companies in Sri Lanka. *Procedia-social and behavioral sciences, 40,* 709-715.

de Wet, J. H., & Hall, J. H. (2004). The relationship between EVA, MVA and leverage. *Meditari Accountancy Research*, *12*(1), 39–59. https://doi.org/10.1108/10222529200400003

El-Sayed Ebaid, I. (2009). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *The Journal of Risk Finance*, *10*(5), 477–487. https://doi.org/10.1108/15265940911001385

J., A. N., & M., A. (2014). The Association between Economic Value Added, Market Value Added and Leverage. *International Journal of Business and Management*, *9*(10), 126–133. https://doi.org/10.5539/ijbm.v9n10p126

Mehta, A. M. (2020). Myth vs . Fact ; Influence of Financial Leverage on Shareholder's Return: An Empirical Study of Sugar Sector of Pakistan, 104–114.

Sreelakshmi, K. R., Manjusha, L., Nagalakshmi, K., Chouksey, M. K., & Venkateshwarlu, G. (2015). Ready-to-serve crab sandwich spread in retort pouch: Product development and process optimization. J*ournal of Aquatic Food Product Technology, 24*(4), 315-329.

Pandya, B. (2016). Impact of Financial Leverage on Market Value Added: Empirical Evidence From India. *Journal of Entrepreneurship, Business and Economics*, *4*(2), 40–58.

Pandya, Bhargav. (2017). Association of Financial Leverage with Cost of Capital and Shareholder Value : An empirical study of BSE Sensex Companies. *II*(1), 17–28.

Sharma, P., & Grover, A. (2015). Creating and measuring shareholders' value in Indian companies. *International Journal of Applied Business and Economic Research*, *13*(1), 53–66.

Vijayalakshmi, D., & Manoharan, P. (2015). Corporate leverage and its impact on profitability : A panel data approach. *International Journal of Multidisciplinary Research and Development*, *2*(2), 22–25.

BOARD GOVERNANCE PRACTICES AND CAPITAL STRUCTURE DECISIONS WITH THE MODERATING EFFECTS OF GENDER DIVERSITY: EMPIRICAL EVIDENCE FROM DEVELOPING ECONOMY

Keerthana, G[1], and Balagobei, S[2]

[1,2]*Department of Financial Management, Faculty of Management Studies and Commerce, University of Jaffna, Sri Lanka*
[1] *keerthyg.22@gmail.com,* [2]*saseelab@univ.jfn.ac.lk*

ABSTRACT

The purpose of this study is to investigate the impact of board governance practices on capital structure decisions with the moderating effects of gender diversity. The research methodology constitutes panel regression analysis between board governance attributes and capital structure decisions; further moderation is tested with the gender diversity of listed companies in Sri Lanka from 2016 to 2020. 100 listed companies representing food, beverage and tobacco, capital goods, material and consumer services sectors in Sri Lanka were considered as a sample. This study focuses on the five aspects of board governance practices such as board size, board composition, CEO duality, board meeting and audit committee while capital structure decision is measured based on the long-term debt to total assets. The findings demonstrate that the issue of gender diversity has important implications for the capital structure decisions of the listed firms in Sri Lanka. When interacting with a high level of gender diversity, board governance characteristics are more likely to have a significant impact on firms' capital structure decisions. Board composition unveils a negative effect, and interaction between board composition and gender diversity significantly impacts firms' leverage level. A negative effect is observed when the chief executive officer of a company also serves as the chairman of the board of directors. The effect of the audit committee turns from a positive to a negative effect when women participation on the board increases. This study offers evidence to the corporate sector about the inclusion of female representation in boardrooms, which may further increase transparency and attract capital, particularly debt. This study recommends improving monitoring processes and introducing and examining new methods that can help businesses to draw in greater resources and create an optimal capital structure. It would also assist policymakers in determining the sufficiency of available board governance reforms to improve capital structure balancing.

Keywords: Agency theory, Board composition, Board gender diversity, Capital structure decisions, CEO duality

1. INTRODUCTION

In recent years, academics and practitioners have been focused on corporate governance (CG) issues. The effect of CG issues affects managers' primary investment and finance decisions, as well as the performance and valuation of the

firm (Wintoki, Linck et al, 2012). According to Jensen and Meckling (1976), use of debt capital as governance mechanism can reduce agency issues between managers and shareholders. Debt capital can enhance company value by mitigating agency costs of equity since it averts dilution of equity ownership of insiders and offers additional debt holders' monitoring. Agency theory also confirms that leverage can be considered as a crucial CG mechanism for reducing the agency issues between shareholders and managers by disciplining managers (Jensen 1986; Stulz, 1990).

In recent years, Women's participation in the labour force is increasing in developed and developing nations. However, participation by women on board of directors is relatively low (Nazliben, Renneboog, & Uduwalage, 2021). In Sri Lanka, it is a highly debatable area in CG. In investors' view, effective boards and board gender diversity (BGD) are predictors of a firm's future performance (Aman & Nguyen, 2013). In the corporate sector, good CG mechanisms have often led to significant growth and enhanced capital retention in the nations that have implemented CG system (Ahmed, Sheikh & Wang, 2012).

Many academics have recently concentrated on evaluating the systematic relationship between capital structure (CS) decisions and board governance practices (Ji, Mauer, & Zhang, 2019; De Costa & Ajward, 2021). Greater governance reduces top managers' incentives to choose the level of leverage. Furthermore, diversification and CG interactions have an unfavourable effect on financial leverage, suggesting that sophisticated governance reduces the amount of leverage in diversified firms (Ji, Mauer & Zhang, 2019). Azmi et al. (2019) argue that well governed enterprises have a small amount of debt and agency issues are mitigated in the US market. Fosberg (2004) found that organizations with CEO duality were successful in raising the proportion of debt in firm CS. However, the data show a weak positive association (De Costa & Ajward, 2021; Bulathsinhalage & Pathirawasam, 2017; Buvanendra, Sridharan, & Thiyagarajan, 2017; Hewa Wellalage & Locke, 2012; Kajananthan, 2012).

The extensive and in-depth literature on CS and CG indicates the integral part that these practices can play in determining corporate capital structure-related decisions. Most recent studies that have examined the CG and CS relationship have only looked at the direct association and have not considered the "moderating influence" of other dimensions (Zaid, Wang et al, 2020; Altaf, Waseem, & Abbas, 2020). To fill this gap, the present study attempts to establish the moderating effect of BGD on the association between CG and CS decisions.

Several studies have identified that BGD improves corporate board effectiveness. According to Zaid et al. (2020), the effects of board size and board independence are favourable under the condition of high level of BGD while the effect of CEO duality on firm's leverage turns from negative to positive. In other words, BGD moderates the impact of board structure on a company's financing decisions.

Altaf et al. (2021) exert BGD as a moderating variable to investigate the relationship between CG characteristics and financial structures. According to the findings, the presence of BGD has a significant impact on the attributes of CG and financial structures. Amin et al. (2022) investigate the influence of CG on CS along with the moderating role of BGD. The results revealed that a large number of independent directors have a favourable effect on firm leverage, but, the association between CEO duality and leverage was found to be negatively impacted. Additionally, they demonstrated that BGD has a positive influence on firm leverage and is associated with greater CG quality. Wicramasinghe et al. (2021) explore that the moderating effect of BGD is examined in relation to the board attributes and financial performance. According to the findings, board diversity significantly modifies the association between the number of important board features, including board size, independence, and meeting and financial performance. Wijayawardena et al. (2017) studied the specific gendered strategies employed by women engineers to stay in gender-atypical IT firms in Sri Lanka. Respondents perceived the job requirements in Sri Lanka's IT sector as being masculine. In order to align with and fulfil the prevalent expectations for professional roles, respondents compromised four different aspects of their own gender identities. Respondents' link strategies included "using a hybrid style" and "being meek and neutral," whereas their fit strategies included "adopting masculine qualities" and "demonstrating self-confidence."

According to the discussion above, a better dearth study has been undertaken so far on how board governance (BG) practices impact a firm's CS. In addition, the current conclusions are still debatable, and there are still a few inadequately developed disputes. From the Sri Lankan perspective, this study would be the first in the literature, which analyses the moderating effect of gender diversity on the association between BG practices and CS decisions. Thus, the study addresses the research question of "To what extent do BG practices impact CS decisions of listed firms in Sri Lanka?"

2. LITERATURE REVIEW

2.1 Theoretical review

Agency theory
Agency theory involves the contractual linkage between the agent and the principal under which the principal (shareholders) assigns tasks to the agent (manager) to operate the business efficiently. This theory assumes that the agent may behave opportunistically at the expense of the interest of the principal when the two parties want to optimize their utility. Jensen and Meckling (1976) explained this situation, referring to it as an agency relationship in which the principal's lack of ability to directly observe the agent's action may result in moral lapses, thus raising the agency cost. To mitigate this adverse effect, managers should possess the firm's shares is a suggestion made in this case. So that managers' interest is consistent with shareholders' wealth maximization. Traditional principal and agent conflicts are immaterial to corporations with high ownership concentration.

Resource Dependency Theory

This theory focuses on the board of directors' roles in obtaining access to resources required for the business. It highlights the board of directors' roles in securing important resources for a firm through their relationship to the external atmosphere (Hillman et al. 2000). Resource dependency theorists focus on hiring independent companies as a means of gaining access to the resources necessary for business success (Johnson et al. 1996). For instance, independent directors who are affiliated with legal organizations provide legal advisory services that could otherwise be more expensive for the organization to get, either in board meetings or in private communications with the firm executives. It has been argued that supplying resources enhances the firm's performance, sustainability, and firm function (Daily et al. 2003).

2.2 Empirical evidence

The board of directors is a crucial CG tool for balancing the interests of shareholders and managers. The large number of directors on the board increases the firm value, mitigates principal-agent issues through an adequate monitoring process and resolves agency conflicts. The larger board size attempts to adopt a high debt strategy through strict monitoring in order to enhance the firm value (Feng et al., 2020). In the views of debt providers, the larger board improves the firms' credibility and financial stability because it is seen as an essential attribute from the viewpoint of creditors (Zaid et al., 2020).

According to agency theory, independence on boards is seen as one of the crucial CG attributes (Fan et al., 2019). Directors' expertise, broad viewpoint, and lack of management ties allow them to assiduously observe top management behaviour and make wise governance decisions. Similarly, independent directors enhance financial transparency, which increases the firm's access to capital because of a higher credit rating (Chen & Hsu, 2009) and ensures that the interests of debt holders will be protected (Zaid et al., 2020).

In general, the company's chief executive officer is in charge of overseeing the firm's operations and managing day-to-day operations whereas the chairman is answerable to drive the board and determine the strategic goals of the business. Contrarily, agency theory emphasizes the separation of both functions in order to establish an efficient CG system and minimize agency issues (Fama & Jensen, 1983). According to the agency hypothesis, we contend that companies with CEO duality experience agency problems and are viewed as riskier by lenders, which leads to a reduction in the amount of loan that is available to these companies. According to several studies, a board that meets frequently is more likely to make choices that are advantageous to shareholders (Sharma et al., 2009). In accordance with this viewpoint, the board will be better able to monitor management through frequent meetings, resulting in outcomes that are advantageous to the firms' shareholders.

Gender diversity in the workplace has recently received a lot of attention in the world (Farrell & Hersch, 2005). The presence of female directors on the board reduces managerial opportunistic behavior and information asymmetry, which, in turn, affects the lenders' perceptions of the borrower's capacity to repay the debt with interest. As a result, companies with greater diversity may have lower costs of debt (Usman et al.,

2019). According to agency theory, a board with female directors is likely to be a better watchdog over managers' activities since diversity boosts board independence (Carter et al., 2003). Therefore, the percentage of women on the board of directors may have an impact on how the board of directors' characteristics affect the CS of the company. Observing top management activities and board strategic decisions based on the aforementioned factors, we hypothesize that the proportion of women on the board has a considerable impact on the effectiveness of the board. Accordingly, firms' debt decisions will be derived. More specifically, when there is equality in the distribution of board members' gender, good board features may aid corporations in managing their financing policies more effectively. With the moderating effects of gender diversity, the following hypotheses are developed:

H_1: The size of the board is positively related to the CS decisions of listed companies in Sri Lanka

H_2: The board composition is positively related to the CS decisions of listed companies in Sri Lanka

H_3: The CEO duality is positively related to the CS decisions of listed companies in Sri Lanka

H_4: The number of board meetings is positively related to the CS decisions of listed companies in Sri Lanka

H_5: The audit committee is positively related to the CS decisions of listed companies in Sri Lanka

We, then, hypothesize that the above relationships would be moderated by BGD.

H_6- BGD moderates the relationship between BG practices and CS decisions of listed companies in Sri Lanka.

3. METHODOLOGY

This section demonstrates the research methodology exerted in this research. The quantitative method and the deductive approach are employed as this study intends to investigate the effect of BG practices on CS decisions with the moderating role of BGD.

3.1 Sample and Data

The Colombo Stock Exchange (CSE) consists of 287 firms representing nineteen different business sectors in 2020 (CSE, 2023). Among 19 sectors, 135 companies under the four sectors such as food, beverage and tobacco, consumer services, capital goods and materials are considered as the population of the study for the period from 2016 to 2020. These four sectors are considered based on the higher number of companies listed under each sector. Random sampling technique has been employed to choose 100 companies as the sample. The audited annual reports of the selected firms are used as the main secondary sources of data. In order to achieve the objectives of the study, panel regression analysis, correlation analysis, and descriptive

statistics are used. Panel regression model estimates the impact of BG practices on CS decisions.

3.2 Model Specification

To examine the impact of BG practices on CS decisions, the following Panel regression model is used:

$$LDTA_{it} = \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BCOM_{it} + \beta_3 CEOD_{it} + \beta_4 BMEET_{it} + \beta_5 ACOM_{it} + + \beta_6 FSIZ_{it} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..\ldots\ldots\ldots\ldots\ldots\ldots\ldots..(1)$$

$$LDTA_{it} = \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BCOM_{it} + \beta_3 CEOD_{it} + \beta_4 BMEET_{it} + \beta_5 ACOM_{it} + \beta_6 BSIZ_{it} \times BGD_{it} + \beta_7 BCOM_{it} \times BGD_{it} + \beta_8 CEOD_{it} \times BGD_{it} + \beta_9 BMEET_{it} \times BGD_{it} + + \beta_{10} ACOM_{it} \times BGD_{it} + \beta_{11} FSIZ_{it} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..\ldots\ldots\ldots.\ldots\ldots(2)$$

3.3 Measurement of variables

Dependent variable

CS decisions are considered as the dependent variable of the study**.** It is measured based on long-term leverage (LDTA). The long-term debt-to-total-assets ratio is a measure in relation to of the firm's assets that are financed by long-term debt (consisting of loans or other liabilities) for more than one year (Zaid et al., 2020; Bulathsinhalage & Pathirawasam, 2017).

Explanatory variables

BG practices are the explanatory variables which include board size (BSIZ), board composition (BCOM), CEO duality (CEOD), board meeting (BMEET), and audit committee (ACOM). BSIZ denotes the number of directors on the board. BCOM is the proportion of independent non-executive directors to the total number of directors on the board. CEOD is equal to one if the CEO also holds the position of board chair, and zero otherwise. BMEET is evaluated by the number of board meetings held per year. ACOM is evaluated by the number of members of the audit committee (Kajananthan, 2012; Bulathsinhalage & Pathirawasam, 2017; Zaid et al., 2020; Feng et al., 2020).

Moderating variable

Impact of CG practices on CS decisions is measured using both direct and indirect approaches. In this sense, BGD has been introduced as a moderating variable in the analysis. It is measured as the proportion of woman directors on the board (Altaf et al., 2021).

Control variables

Control variables eliminate model misspecification and take into account additional variables that could affect the firm's CS possibilities. Based on the existing literature on the association between CG and CS, firm size is considered as a control variable of the study. It is the natural logarithm of the total assets of firms.

4. FINDINGS AND DISCUSSION

Table 1. Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.
BSIZ	8.208	8.000	15.000	3.000	2.231
BCOM	0.395	0.400	1.000	0.182	0.109
BGD	0.082	0.071	0.667	0.000	0.105
CEOD	0.880	1.000	1.000	0.000	0.325
BMEET	5.268	4.000	14.000	2.000	2.797
ACOM	3.186	3.000	6.000	2.000	0.721
FSIZ	8.239	8.617	10.568	5.508	1.380
LDTA	0.061	0.013	0.458	0.000	0.091

Table 1 shows the descriptive statistics of CS decisions (LDTA), and BG practices and firm size. 100 listed companies are drawn from a range of capital goods, food, beverage and tobacco, consumer services, and materials sectors. The average long-term leverage (LDTA) of listed firms is 0.061 within the range between 0.458 and 0.000. BSIZ for the Sri Lankan selected firms averaged 8 members among them 39.5% of directors are independent non-executive directors. BGD ranges from 0 to 0.667 and the mean value is 0.082. CEOD has a mean value of 0.880. Averagely, a firm conducts about five board meeting per year. The mean value of ACOM is 3.186, which ranges from 2 to 6.

Table 2: Correlation Matrix

	BSIZ	BCOM	BGD	CEOD	BMEET	ACOM	FSIZ	LDTA
BSIZ	1.000							

BCOM	-0.203**	1.000						
	0.000	-----						
BGD	-0.022	-0.039	1.000					
	0.629	0.381	-----					
CEOD	0.068	0.101	-0.057	1.000				
	0.126	0.023	0.204	-----				
BMEET	0.265**	0.050	-0.111	0.143**	1.000			
	0.000	0.263	0.013	0.001	-----			
ACOM	0.040	-0.139**	0.063	0.128	0.215**	1.000		
	0.372	0.002	0.161	0.004	0.000	-----		
FSIZ	-0.050	0.096**	0.236**	0.027	0.101**	-0.045	1.000000	
	0.266	0.032	0.000	0.547	0.025	0.317	-----	
LDTA	0.145**	0.046	-0.142**	0.177**	0.292**	-0.114**	0.187**	1.000
	0.001	0.305	0.001	0.000	0.000	0.010	0.000	-----

** statistically significant at 5% level

Table 2 shows the Pearson correlation coefficient between BG practices and CS decisions of listed companies in Sri Lanka. According to the findings, the correlation coefficient between BSIZ and CS decisions is 0.145, which is positive and significant at 5% level. Likewise, BCOM has not shown any significant relationship with CS decision at 5% level. BGD has a weak negative relationship with CS decision at 5% significant level. The correlation coefficient between CEOD and CS decision is positive at 5% levels. BMEET also has a correlation coefficient of 0.292 at a

significant level of 5%. Hence, it represents a weak positive relationship with CS decisions. The correlation coefficient between ACOM and CS decision is -0.114, which is significant at 5% level. FSIZ has a correlation coefficient of 0.187 with a probability of 0.000. Hence, it represents the weak positive relationship between FSIZ and CS decisions.

Table 3: Panel Regression Analysis

	Fixed effect		Random effect	
	(1)	**(2)**	**(1)**	**(2)**
Constant	-0.084	-0.117	-0.102**	-0.123**
BSIZ	0.003**	-0.004	0.001	0.001
BCOM	0.085**	0.132**	0.072**	0.119***
CEOD	0.032**	-0.042	-0.037*	-0.037
BMEET	0.003	0.022***	0.004**	0.024***
ACOM	0.011***	0.001	0.017***	0.003
Interactions				
BSIZ × BGD		0.046		0.032
BCOM × BGD		-0.128**		-0.098**
CEOD× BGD		-0.582**		-0.055
BMEET × BGD		0.033		0.052***
ACOM × BGD		-0.171**		-0.133**
Controls				
FSIZ	0.0104	0.009	0.011***	0.011**
R-squared	0.7747	0.7869	0.5669	0.8675
Adjusted R-squared	0.7146	0.7266	0.4327	0.7925
F-statistic	12.902	13.058	4.224	3.8552
Prob(F-statistic)	0.0000	0.0000	0.0001	0.0000
Durbin Watson	1.821	1.896	1.570	1.609

*, **and *** statistically significant at 10%, 5% and 1% levels

Table 3 represents panel data regression analysis for the listed companies in Sri Lanka. According to the Hausman test, the fixed effect model is recommended. Consequently, the results of the fixed effect model were taken into consideration for the following discussion. According to the adjusted R-squared value, the explanatory factors in the empirical model explained approximately 73% of the variation in CS decisions. F-test results show a statistically significant p-value. (13.058; $p < 0.05$). Consequently, the econometric model fits the data well.

In evaluating the model based on the fixed effect regression model's findings, the result shows that the BSIZ has a positive and statistically significant impact on CS decision (ß=-0.003, p< 0.05). The finding implies that a greater BSIZ resulted in a higher level of debt supporting H_1. Firms with large boards have a better chance of obtaining funding from outside sources to increase the firm's worth. The results are consistent with previous research undertaken by Zaid et al. (2020) and Usman et al. (2019). BCOM variable has a positive and statistically significant impact on CS

decisions supporting H_2. It indicates that debt funding for businesses increases in proportion to the number of independent non-executive directors present in the boardroom. This finding is consistent with the prior studies conducted by Zaid et al. (2020) and Amin et al. (2022). When exploring the impact of CEOD on CS decisions, it has a positive and significant coefficient ($ß = 0.032$; $p < 0.05$) of the CEO duality variable. Therefore, H_3 is supported. This finding is in line with the prior studies conducted by Bajagai et al. (2019). ACOM has a significant positive impact on CS decisions ($ß = -0.011$, $p < 0.05$). Hence, H_5 is supported by finding. It is also in accordance with previous finding of Meah (2019). As seen in table 4, H_4 is not supported by findings as BMEET have no significant impact on CS decisions.

Moving to the moderating effect, the results expose no significant effect of the interaction between gender diversity and BSIZ ($ß = -0.046$, $p > 0.05$). This indicates that when the percentage of females in the boardroom increases the effect of the board size on the firm's debt level will not be changed. BCOM unveils a negative coefficient, and significant influence of the interaction between BCOM and gender diversity on firm leverage level ($ß = -0.128$, $p < 0.05$). The impact of BCOM was turned from positive to negative. Likewise, CEOD has a significant negative impact on the interaction between CEOD and gender diversity on firm leverage level ($ß = -0.582$, $p < 0.05$). The impact of CEOD was turned from positive to negative. It points out that the tenure of the CEO is adversely linked to leverage, as rooted CEOs desire little leverage to cut performance pressures. Furthermore, ACOM has a significant negative impact on the interaction between ACOM and gender diversity on firm leverage level ($ß = -0.582$, $p < 0.05$). The impact of ACOM was turned from positive to negative. Moreover, the results expose no significant effect of the interaction between gender diversity and BMEET ($ß = -0.033$, $p > 0.05$). H_6 is supported by finding as BGD moderates the relationship between BG practices and CS decisions of listed companies in Sri Lanka in terms of BOM, CEOD and ACOM.

5. CONCLUSION

This research study aspires to assess the impact of board governance practices on capital structure decisions of the listed companies in Sri Lanka and how it is moderated by gender diversity. The panel regression analysis that was run between board governance practices with capital structure decisions has been discussed; further moderation was tested with gender diversity. The direct effect was converted into an indirect effect between the board size and capital structure decisions, which shows that board diversity moderates its relation. The board composition on debt creates a moderating effect and it can be concluded that the firm will be affected by the gender diversity of the board members, which would affect the financial decisions of the company. The positive impact was converted into a negative effect between the separation of duties between the CEO and chairman of a company, which demonstrates that the relationship is moderated by the participation of women on the board. The impact of the audit committee changes from a significant positive to a negative effect when the proportion of women on the board increases.

The assertion of this study, which is consistent with previous research and supported by the agency theoretical framework, is that gender diversity has significant consequences for the financing decisions of the listed companies in Sri Lanka. Board governance attributes are more likely to significantly influence firms' capital structure when interacting with a high level of gender diversity. The study's conclusions include recommendations for improving monitoring processes and introducing and examining new methods that can help businesses to draw in greater resources and create an optimal capital structure. It would also assist policymakers in various aspects in determining the adequacy of corporate governance reforms to improve capital structure management.

The study contains a few limitations that could guide various future studies. The sample of 100 companies was selected from only four sectors. Future studies may use other sectors for their study and make comparisons. Moreover, the research should use many other attributes of corporate governance, which may be more useful in future research. Furthermore, an analysis for a longer period may provide more valid results. It is better to apply mixed method techniques for future studies.

REFERENCES

Ahmed Sheikh, N., & Wang, Z. (2012). Effects of corporate governance on capital structure: empirical evidence from Pakistan. *Corporate Governance: The International Journal of Business in Society , 12* (5), 629-64.

Altaf, K., Waseem, F., & Abbas, S. F. (2021). Corporate governance practices and capital structure decisions: the moderating effect of gender diversity. *International Journal of Business Reflections , 2* (2), 181- 203.

Alves, P., Couto, E. B., & Francisco, P. M. (2015). Board of directors' composition and capital structure. *Research in International Business and Finance , 35*, 1–32.

Aman, H., & Nguyen, P. (2013). Does good governance matter to debtholders? Evidence from the credit ratings of Japanese firms. *Research in International Business and Finance*, *29*, 14-34.

Amin, A., ur Rehman, R., Ali, R., & Mohd Said, R. (2022). Corporate Governance and Capital Structure: Moderating Effect of Gender Diversity. *SAGE Open , 12* (1), 1-17.

Azmi, W., Anwer, Z., Mohamad, S., & Shah, M. E. (2019). The substitution hypothesis of agency conflicts: evidence on Shariah compliant equities. *Global Finance Journal , 41*, 90-103.

Bajagai, R. K., Keshari, R. K., Bhetwal, P., Sah, R. S., & Jha, R. N. (2019). Impact of ownership structure and corporate governance on capital structure of Nepalese listed companies. *Business governance and society* , 399-419.

Bulathsinhalage, S., & Pathirawasam, C. (2017). The effect of corporate governance on firms' capital structure of listed companies in Sri Lanka. *Journal of Competitiveness, 9*(2), 19-35.

Buvanendra, S., Sridharan, P., & Thiyagarajan, S. (2017). Firm characteristics, corporate governance and capital structure adjustments: A comparative study of listed firms in Sri Lanka and India. *IIMB management review, 29*(4), 245-258.

Carter, D.A., Simkins, B.J. and Simpson, W.G. (2003), ''Corporate governance, board diversity and firm value'', The Financial Review, *38*(1), 33-53.

Chen, H. L., & Hsu, W. T. (2009). Family ownership, board independence, and R&D investment. *Family business review*, *22*(4), 347-362.

Colombo Stock Exchange. (2023, Febrauary 05). Retrieved from CSE : https://www.cse.lk/pages/listed-company/listed

company.component.html?status=2

Daily, C.M., Dalton, D.R. and CannellaJr, A.A., 2003. Corporate governance: Decades of dialogue and data. *Academy of management review*, *28*(3), pp.371-382.

De Costa , M. N., & Ajward, A. R. (2021). The impact of board governance on financial performance with the mediating effect of capital structure: evidence from non-financial listed companies in Sri Lanka. *Accounting Panorama, 4*, 1.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, *26*(2), 301-325.

Fan, Y., Jiang, Y., Zhang, X., & Zhou, Y. (2019). Women on boards and bank earnings management: From zero to hero. Journal of Banking & Finance, 107, 105607.

Farrell, K. A., & Hersch, P. L. (2005). Additions to corporate boards: The effect of gender. *Journal of Corporate finance*, *11*(1-2), 85-106.

Feng, Y., Hassan, A., & Elamer, A. A. (2020). Corporate governance, ownership structure and capital structure: evidence from Chinese real estate listed companies. *International Journal of Accounting & Information Management*. *28* (4), 759-783.

Fosberg, R. (2004). Agency problems and debt financing: leadership structure effects. *Corporate governance , 4* (1), 31-8.

Hewa Wellalage, N., & Locke, S. (2012). Corporate governance and capital structure decision of Sri Lankan listed firms. *Global Review of Business and Economic Research, 8*(1), 157-169.

Hillman, A. J., Cannella, A. A., & Paetzold, R. L. (2000). The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change. *Journal of Management studies*, *37*(2), 235-256.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics, 3*(4), 305-360.

Jensen, M.C. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review 76*(2), 323–329.

Johnson, J.L., Daily, C.M. and Ellstrand, A.E., 1996. Boards of directors: A review and research agenda. *Journal of management*, *22*(3), pp.409-438.

Ji, S., Mauer, D. C., & Zhang, Y. (2020). Managerial entrenchment and capital structure: The effect of diversification. Journal of Corporate Finance, 65, 101505.

Kajananthan, R. (2012). Effect of corporate governance on capital structure: case of the Srilankan listed manufacturing companies. *Researchers World*, *3*(4), 63.

Meah, M. R. (2019). The efficiency of corporate governance on capital structure: An empirical study from listed manufacturing firms in Bangladesh. *Asian Journal of Accounting and Governance , 11* (1), 13-23.

Nazliben, K. K., Renneboog, L., & Uduwalage, E. (2021). Social diversity on corporate boards in a country torn by civil war. *European Corporate Governance Institute–Finance Working Paper*, (795).

Sharma, U., & Lawrence, S. (2009). Global remedies for local needs: Corporate governance and public sector reforms in Fiji. *Pacific Accounting Review*, *21*(3), 260 - 280.

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics , 26*, 3–27.

Usman, M., Farooq, M. U., Zhang, J., Makki, M. A., & Khan, M. K. (2019). Female directors and the cost of debt: does gender diversity in the boardroom matter to lenders? *Managerial Auditing Journal , 34* (4), 374–392.

Wickramasinghe, M. M. T., Ajward, R., & Wijesinghe, D. (2019). The moderating impact of board gender diversity on the relationship between selected board attributes and financial performance in listed manufacturing companies in Sri Lanka.

Wijayawardena, K., Wijewardena, N., & Samaratunge, R. (2017). Compromising gender identities: Stay strategies of women in gender-atypical information technology firms in Sri Lanka. *Information Technology & People*, 30(2), 246-264.

Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics , 105* (3), 581-606.

Zaid, M. A., Wang, M., Abuhijleh, S. T., Issa, A., Saleh, W. A., & Ali, F. (2020). Corporate governance practices and capital structure decisions: the moderating effect of gender diversity. *Corporate Governance: The International Journal of Business in Society , 20* (5), 939-964.

THE RELATIONSHIP BETWEEN GREEN ACCOUNTING PRACTICES AND THE PROFITABILITY OF LISTED BANKS AND LICENSED COMMERCIAL BANKS IN SRI LANKA

Jayakody J. K. G. M.[1], Jayasinghe, J. A. G. P.[2]

[1,2]Department of Accountancy, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka, Kuliyapitiya
[1]guwaniemanelka@gmail.com, [2]gayani@wyb.ac.lk

ABSTRACT

Green Accounting is a new trend which absorbs the environmental, social and economic cost to the financial results of a corporation towards sustainability development. Though numerous studies have examined sustainability reporting, Corporate Social Responsibility initiatives, and environmental accounting in environmentally sensitive industries, there is a paucity of studies on the green accounting and Sri Lankan finance industry. Therefore, the main objective of this study is to investigate the impact and the relationship between green accounting practices and the profitability of the banking industry in Sri Lanka for a clear understanding for intended users to make the right decision by answering the research problems. The total population is 26 banks which are listed in the CSE, and commercial banks under the Central Bank of Sri Lanka. Based on the availability of information, the sample consists of 24 banks. A disclosure score checklist is created to gather qualitative information that will be used to calculate the extent of green accounting practices in annual reports for the years 2015 through 2020. The study's independent variable is Green Accounting and reporting practices; the study's dependent variable is their outcome regarding Profitability (Return on Asset), and the study's control variable is Liquidity. Data analysis was used to do regression analysis, descriptive analysis, correlation analysis, and multiple regression analysis. Due to the two independent variables' positive correlation coefficients, this study discovered a significant positive relationship between the independent variable and the dependent variable profitability (ROA). This study also discovered that banking entities adhere to social accounting principles more so than commercial and environmental operations. However, the environmental actions were barely noticeable. It might be because the banking industry is less environmentally sensitive than the manufacturing, mining, chemical, and pharmaceutical sectors. However, it is proposed that banking organizations adopt a green concept with more environmental compliance in the upcoming years because using more green accounting techniques will have both short- and long-term advantages.

Keywords: Green Accounting Reporting Practices, Green Accounting Reporting Index, Return on Assets, Liquidity, Liquidity Coverage Ratio

1. INTRODUCTION

The impact on the natural environment is numerous due to people and business organizations exploiting natural resources from the environment in an excessive

manner to fulfil the needs and wants of the people as well as to maximize the organizations' profit. Although the Industrial Revolution has contributed to a nation's economic progress and the expansion of industrial and technology firms, its effects on the environment have gotten worse than they used to. Nowadays public as well as the stakeholders of the organizations mostly concerned about the environmental impact and they may look forward to favourable industrial activities that may minimize the negative impact on the environment. For these reasons, green accounting has entered the picture. Green accounting practices are crucial for all businesses. Whether green accounting practices play a vital role, adoption of green accounting practices in developing countries is more dearth than in developed countries. There are several types of research on green accounting that have been done in developed countries than in the countries which are in the process of development. Nowadays Sri Lanka is facing the challenge of environmental pollution, climate changes, regular natural disasters, deforestation and forest destruction, biodiversity loss, and degradation of coastal and marine habitats with rapid industrialization. Banks provide facilities to fill the saving and investment gap in the economy by playing the role of financial intermediary in the financial system and eventually, it will cause to boost economic growth. Since businesses operate intending to maximize profits, Banks drive profit maximization through lending processes.

To address the literature gap in green accounting and the profitability of the banking industry, this analysis is undertaken to address this issue to explore the solution for the research objective which is to establish the relationship between green accounting and reporting practices and the profitability of banks which are listed in the Colombo Stock Exchange and licensed Commercial Bank under the industry of banking by using GRI framework. With the purpose of attaining the mentioned research objective of this study, the researcher will answer the research problems of What kind of relationship is between green accounting and reporting practices and the profitability of banks? and What kind of impact of green accounting and reporting practices on the profitability of banks?

The banking industry in Sri Lanka uses a variety of green accounting techniques. One significant aspect of the green accounting methods used by the banking industry is green banking. According to Mozib Lalon (2015), there are two different types of green banking practices, including internal green banking and green banking in their business area. However, the objective of green accounting is to enable users or stakeholders to properly examine the financial condition and performance of the organization under consideration, the level of risk attached to the company, the prospects for future business growth, and the performance of corporate profits. Lako, (2018) mentioned that the goal of green accounting facilitates to evaluate the corporate sustainability before making both final economic as well as non-economic decisions. According to (Dissanayake et al., 2016), The manufacturing, energy, pharmaceutical, utility, and mining industries are more ecologically conscious than the banking industry. Even though the level of green accounting practices varies from firm to firm, research into green accounting practices and firm profitability may yield crucial results for all users who make their judgments on the data. Users may not be

able to immediately make conclusions about the firm by evaluating the green accounting practices provided because the amount of disclosure depends on organizational features and financial performance. After all, green accounting practice levels vary from firm to firm. When looking at the literature, there aren't many studies that compare profitability in the Sri Lankan banking sector utilizing the GRI framework and green accounting practices.

Nowadays most banks are complying with the "go green" concept and practice various types of green banking practices. This study will beneficial to identify what are the green accounting practices used in the banking industry and how those are different among the banks which are listed in CSE under the industry of banking and the licensed commercial banks under the Central Bank. The finding of this study will be of enthusiastic interest to bankers to make decisions about existing practices and what should they adopt in the future towards better environmental performance as this study will assist intended users in making decisions. Since there is a dearth of research related to the topic of green accounting practices and profitability in the banking industry in Sri Lanka, as well as this research helps to identify Liquidity behaviour with GARP with banks. According to those things, this research will help to gain decisions about practices with GARI, because most institutions have myths that use GARP as a costly thing in the banks. This study helps to gain knowledge about the positive impact of GARP on the banks. This study will be a great help to other researchers as a reference by adding to the existing body of knowledge.

2. LITERATURE REVIEW

The primary theories and terminology associated with this research study were stakeholder theory, legitimacy theory, institutional pressures theory, company theory, green accounting, global reporting initiatives (GRI), profitability, and liquidity. In the theoretical background, researcher theories have discussed the definitions, opinions, and statements which were expressed by the other researchers regarding the above-mentioned theories.

In considering support Literature review for these results, Ingumba & Nairobi, (2017) used data from secondary sources, such as the annual reports of nine out of ten listed manufacturing firms on the Nairobi Stock Exchange, to determine the relationship between environmental accounting and reporting practices and profitability of manufacturing firms listed on the Nairobi securities exchange. For inferential data analysis of this study, Pearson correlation coefficient, regression, and multiple regression were utilized. As a stand-in for profitability in this study, return on assets was used. Environmental Accounting and Reporting Practices were indexed as the independent variable in this investigation. This index was obtained by conducting a content analysis and awarded scores for the information reported by every company according to the pre-determined checklist. Liquidity and leverage were the control variables of this study. This study has shown that profitability has a positive relationship with liquidity, leverage, and the Environmental Accounting and Reporting Index (EARI). According to this research study, independent variables made up 27% of a company's profitability. So, Ingumba & Nairobi, (2017)mentioned

that to attain profit firms should implement environmental accounting and reporting practices in their strategy designing.

Carandang and Ferrer, (2020) studied the effect of environmental accounting on publicly traded Philippine mining and oil companies. Secondary data were gathered for this quantitative analysis by keeping track of the annual reports of 24 mining and oil businesses listed on the Philippine Stock Exchange from 2012 to 2016. Environmental Accounting Disclosures 47 and environmental cost reporting were used to examine the independent variable in this empirical study. According to the checklist, 1 per cent of firms implementing the environmental index disclosed environmental accounting information. To measure profitability, the researcher has used the net profit margin and return on equity. The Environmental accounting disclosures were the percentage that was obtained by providing a score of 1 for the companies using the environmental index according to the checklist. Profitability was employed as a dependent variable in this case, as assessed by the net profit margin and return on equity. Tobin's Q was used as a substitute for the other dependent variable, a firm's value. The auditing company type, firm size, board size, years listed on the Philippine Stock Exchange, listing location, and listing location were all mediating factors. According to this study, environmental accounting disclosure has no discernible effect on profitability or enterprise value. However, location, a minor component, has a significant impact on ROE. However, factors such as business size, board size, and length of time listed on the Philippine Stock Exchange all have a substantial impact on ROE. Furthermore, the location has been demonstrated to have a significant impact on ROI, Tobin's Q, and NPV.

Makori & Jagongo, (2013) A study was undertaken using secondary sources such as the yearly financial reports and accounts of 14 enterprises chosen at random from the Bombay Stock Exchange to see whether environmental accounting had any effect on the profitability of listed corporations in India. According to this research study(Makori & Jagongo, 2013), There is a highly substantial negative association between environmental accounting and ROCE and EPS, as well as a highly significant inverse link between environmental accounting and net profit margin and dividend per share. Environmental Accounting Reporting Disclosure and the corporate profitability of listed Bangladeshi manufacturing enterprises were examined by Rakiv et al., (2016) Secondary data from selected annual reports are used for this exploratory research. To create the Disclosure Index, twenty-one of the most important disclosures in environmental accounting were used. This analysis manipulated the Return on Assets to approximate profitability. This research shows a strong positive correlation between environmental accounting reporting disclosures and corporate profitability. Gunawardhana, (2020) Sri Lankan banks employ eco-friendly accounting methods. A researcher selected 10 commercial banks and 2 specialized banks out of 24 commercial banks and 6 special banks under central bank supervision based on available information. This sample was selected based on GRI's disclosure of green accounting practices. According to a six-year descriptive analysis, green accounting practices across banking institutions averaged 44%. Green accounting practices were found to have a weakly positive correlation with leverage, a significant positive correlation with business size, and a large positive correlation

with net income. According to the findings of earlier researchers and this study, GARI has a considerable impact on the profitability of an organization.

According to the empirical studies, most of the empirical studies indicate that green accounting and profitability have a positive significant relationship. In most of the empirical evidence, performance and the profitability of the companies were measured by ROA, ROE, EPS, and Tobin's Q and researchers developed an index to measure the compliance level of the green accounting reporting practices.

3. METHODOLOGY

According to the selected method of theoretical framework, a conceptual framework was established. Figure 1 depicts a conceptual model that is developed for this research. Along with the independent and dependent variables, there is also one control variable. The study's independent variable is Green Accounting and reporting practices; the study's dependent variable is their outcome regarding Profitability (Return on Asset), and the study's control variable is Liquidity. This conceptual framework demonstrates how the research links the impact of the factors that were chosen through the evaluation that was done.

Independent Variable

Green Accounting and reporting practices

(GARI)

Dependent Variable

Profitability

(Return on Asset)

Control Variable

Liquidity (LCR)
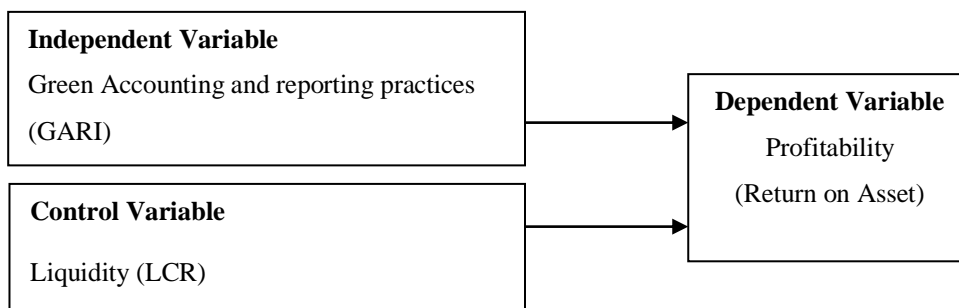
Figure 1. Conceptual Framework

The study's independent variable is Green Accounting and reporting practices; which is measured by the Green Accounting Reporting Index (GARI) which was derived from the Global Reporting Initiatives (GRI). Since there's no defined index for green accounting in the Sri Lankan context, researchers should refer to the Global Reporting Initiative (GRI) in order to disclose and report their economic, environmental, and societal impacts in a manner that is comparable and trustworthy. If an organization adheres to the GRI standard, there is a possibility that it will be able to improve the transparency of its contribution to sustainable development. The Global Reporting Initiative (GRI) is the primary international standard and the hub of international guidelines.

Since profitability ratios are used to measure the performance of a company, in this research ROA is employed as the proxy of profitability. Because ROA can express the company's capability to generate net income after tax from total assets, ROA can measure how profitable an entity is compared to its total assets. Further, it gives the idea of how well the entity utilizes the assets in terms of profitability. The controlling variable, Liquidity which is the quick ability to convert assets into cash when a

sudden situation occurs. However, sometimes this controls the investing ability to long-term projects and CSR activities which are less liquidated. Therefore, in this research liquidity stands as the control variable.

For this study, the population of interest consisted of the banking institutions that were trading on the Colombo Stock Exchange and All Licensed Commercial banks in the Central Bank in Sri Lanka as part of the Banking industry as of August 2021 (26 Banks). As a direct consequence of this, the total population takes into consideration the 26 Colombo Stock Exchange and Licensed Commercial Bank publicly reupdated companies that are active in the banking industry. The sample consists of all of the publicly traded financial institutions that are recognized as being a component of the banking industry, and all are CSE-registered and licensed commercial banks in Sri Lanka's central bank. All banks in the population were considered as the sample, but due to lack of information, two banks were not taken as a sample of the method does not consider the bank, as yearly reports and information of two of the banks. This study will be undertaken over six years. As a result, the years 2015 to 2020 are being considered. To acquire the required secondary data, annual reports of the companies would be used. Information about firm profitability, total current assets, total current liabilities, debt, equity, and content analysis was taken from the annual financial reports of listed companies on the Colombo Stock Exchange and licensed commercial banks in Sri Lanka. This was done to find out how common green accounting practices are among these businesses. In addition, quantitative and qualitative methods were used in this study's design and execution to meet the predetermined goals. The researcher has utilized the GRI standard to gauge the transparency of green accounting. All other factors are quantifiable and can be tracked through the yearly reports of the referring bank. This study will utilize a deductive method to examine how green accounting and reporting procedures impact the bottom lines of banks trading on the Colombo Stock Exchange and regulated commercial banks. The study's overarching question was: Does the adoption of environmentally friendly accounting and reporting practices have a positive or negative impact on financial institutions' bottom lines? In addition, we want to learn how green accounting and reporting methods affect financial institutions' bottom lines.

The conceptual framework offered in this study is depicted as a diagram, and it is clear that there is only one independent variable and one dependent variable. A control variable, or profit-influencing factor, is also shown to exist inside the conceptual framework's visual representation. Accounting and reporting methods that are less taxing on the environment have been linked to higher earnings in the past. The following set of hypotheses might be developed to investigate the link between environmentally green accounting and reporting methods and financial profitability.

H1: There is a significant relationship between Green Accounting and Reporting Practices (GARP) on Return on assets

H0: There is no significant relationship between Green Accounting and Reporting Practices (GARP) on Return on assets

It is permissible to identify this investigation as an instance of the research approach known as quantitative research because it uses statistical data and because the research questions were specifically determined by quantitative research. The E views program version 9 is then used to examine all the data after it has been entered into a statistical format. This study investigates the connection between environmentally responsible accounting practices and the financial success of publicly traded banks. The researcher took a deductive approach to analyze the data for this study. Because of this, the quantitative methodology is suitable for this study. Additionally, a cross-section of the population is examined in this study.

In this study, dependent variables were measured using the GARI. Additionally, the researcher utilized the disclosure score checklist, which is utilized by, Sulaiman et al., (2014) to assess the disclosure level. When the indicator was completely disseminated, it received a score of 1, while the undisclosed indicator received a score of 0. Finally, the total number of points obtained was added up to produce the average score of the aforementioned disclosure level index by Ong et al (2016).

The independent variable is GARP and the controlling variable is Liquidity. These variables were chosen as representations for determining the corporate accounting practices of the companies as measured by the annual reports of the listed banking entities and licensed commercial banks. When considering the variables of the study, the researcher used different dimensions.

- GARP – Measured by GARI, GARI used 62 dimensions to identify reporting practices in banks, with those 62 dimensions identifying the most widely used global reporting initiatives in the Sri Lankan context. Previous researchers also considered these GARI in their work.

- Profitability – Annual ROA from annual reports

- Liquidity – Annual LCR from annual reports of banks.

Following data collection, a preliminary analysis was performed, followed by descriptive analysis and regression analysis for data analysis. This research develops a regression model to execute an empirical analysis to analyze the impact of Green Accounting and Reporting Practices (GARP) by GRI Standards and the profitability of the firm. The regression equation was of the form,

$NI = \beta_0 + \beta_1\ GARP + \beta_2\ LQ + \epsilon$ --- (1)

NI = Net Income (Net Profit after Tax)

GARP = Green Accounting and reporting practices

LQ = Liquidity

B0, B1, B2 = Coefficients of regression

ϵ = Error Term

The analysis was carried out with the assistance of the E views software package.

4. FINDINGS AND DISCUSSION

For the variables under consideration, mean value, standard deviation, maximum value, and minimum value were measured using descriptive statistics relating to green accounting practices and profitability of banks listed on the Colombo Stock Exchange under the banking industry and the licensed Commercial Bank under the Central Bank of Sri Lanka. The analysis used one hundred forty-four (144) observations, which are annual data collected from 2015 to 2020. Table 1 describes the descriptive analysis.

Table 1: Descriptive Statistics

	ROA	GARI	LCR
Mean	0.0815	0.5613	178.1536
Median	0.0701	0.4000	155.8350
Maximum	0.2669	1.5200	459.6000
Minimum	-0.2140	0.2300	60.0000
Std. Dev.	0.0729	0.3201	79.0156
Skewness	0.4423	1.5375	1.7683
Kurtosis	4.3531	4.4296	6.2488
Observations	144	144	144

Source: Compiled by the author

The average ROA is 0.070099% (SD 0.072899). And it is ranging from -0.214042% to 0.266932%. It has a long right - tail as skewness is greater than zero (0.442277). As Kurtosis 4.353087 is greater than 3, it is called leptokurtic. The average of the GRI is 0.40000 (SD: 0.320102). The minimum and maximum are respectively 0.230000, and 1.520000. Positive skewness 1.537501 represent long right tail distribution. Since kurtosis is greater than 3(4.429607). The average LCR is 155.835 (SD 0.0768272). And it is ranging from 60.00000 to 459.6000. It has a long right - tail as skewness is greater than zero (1.768272). As Kurtosis 6.248838 is greater than 3, it is called leptokurtic. All variables have a long right-tail as skewness is (1.768272), but as Kurtosis 6.248838 is greater than 3, it is called leptokurtic.

Diagnostic Analysis

Correlation Analysis

Table 2: Correlation Test

	ROA	GARI	LCR
ROA	1.0000	0.7205	0.7000
GARI	0.7205*	1.0000	0.5694
LCR	0.7000	0.5769*	1.0000

Note: Significant at .05 *

The goal of correlation analysis is to figure out how independent and dependent variables are related. There is a requirement that variables not be associated with one another. If the correlation value is more than 0.8, the dataset may contain multicollinearity and such variables must be removed from the model.

According to Table 3 (correlation matrix), the correlation between ROA and GARI is 072052046. And it is a positive correlation. The correlation between ROA and LCR is 0.7004703. And it is a positive correlation. There is a positive correlation between

the GARI and ROA, and the LCR adjusted to the ROA. It is 0.7205205, and 0.5769372 respectively. The correlation between the LCR and ROA is positive. It is 0.700470. The correlation between the LCR and GARI is positive. It is 0.5693716. As well as it showed there are significant relationship between GARI and ROA at 0.05 significant level.

Table 3:Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.039984	Prob. F (2,139)	0.1550
Obs*R-squared	4.392315	Prob. Chi-Square (2)	0.1112

H0: Error term is not correlated
H1: Error term is correlated

A decision rule, Reject H0: If the probability is less than the significance level (0.05)5%. As the probability of F-Statistics is 0.1112 is greater than 0.05. There is not enough evidence to reject the null hypothesis. Therefore, there is no autocorrelation.

Heteroscedasticity Test
Heteroscedasticity is measured using the Breusch-Pagan-Godfrey test. It is explained in table 4.

Table 4: Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.374129	Prob. F (2,26)	0.2969
Obs*R-squared	2.770759	Prob. Chi-Square (2)	0.2502
Scaled explained SS	5.274275	Prob. Chi-Square (2)	0.0716

H0: Error terms has constant variance
H1: Error terms has not constant variance

The decision rule is, Reject H0 if the probability of chi-square is less than 0.05 (Significance level 5%). As the probability of Chi-Square (0.2502) is greater than 0.05, Cannot reject the null hypothesis. Therefore, have to accept the null hypothesis and the error has a constant variance. It ensures homoscedasticity and it does not violate the Ordinary Least Square Assumptions.

Regression analysis
Table 5 shows the regression output of the study relating to green accounting practices and profitability. The regression results in Table 5, showed there was a positive significant relationship between ROA and GARI. This indicates an increase in GARI reporting in licensed commercial banks in Sri Lanka will increase ROA. According to the results, 85.15% variation of the dependent variable (ROA) is explained by the selected independent variables (the GRI differential, and the LCR differential adjusted to ROA). It implies that R-squared equals 85.15%. Adjusted R-squared is closer to R-squared. It implies that unnecessary variable usage in this model is very low. The probability of the F-statistic is 0.0000. Since the probability

of the F- statistic is lower than the significance level of 5% (0.05), it can be concluded that the overall model best fits the population.

Table 5. Regression Output

Variable	Coefficient	Std. error	t-Statistic	Prob.
C	0.2481	0.0077	6.2768	0.0000
GARI	0.1425	0.0346	4.1174	0.0001
LCR	0.0003	0.0001	1.9852	0.0491
R-squared			0.8515	
Adjusted R-squared			0.8494	
F-statistic			404.27	
Prob(F-statistic)			0.0000	

Table 6 indicates the summary of hypothesis testing relating to determinants of change in debt stock in Sri Lanka.

Table 6: Summary of Hypothesis Testing

Hypothesis	Result Obtained	Null Hypothesis	Alternative Hypothesis
H1: There is a significant relationship between Green Accounting and Reporting Practices (GARP) on Return on assets	Positive Significance	Reject	Accept
H0: There is no significant relationship between Green Accounting and Reporting Practices (GARP) on Return on assets			

The following regression equation can be developed by using the findings of the regression analysis.

NI = β0 +β1 GARP + β2 LQ + ε

NI = 0.248127 + 0.143LGARP+ 0.000278LQ + 0.0076**-------------------- (2)**

When the GARI has adjusted positively the ROA increases by 0.143 levels and LCR increases by LKR 0.278 levels positive way the ROA increases, while the other independent variable is held constant.

5. CONCLUSION

The objective of this study was to investigate the scope of green accounting procedures and their effect on ROA and liquidity using the GARI recommendations. The study utilized secondary data acquired from the annual reports of twenty-four banking institutions between 2015 and 2020. The GARI principles were utilized to evaluate green accounting procedures across three primary categories: economic, social, and environmental accounting practices. The objective of the study was to shed light on the existing condition of green accounting procedures in the banking sector. The analysis revealed a positive and statistically significant relationship between profitability and green accounting and reporting methods. This suggests that a rise in green accounting and reporting standards among Sri Lanka's commercial banks would increase their profitability.

Only two of the twelve banks reviewed had a high degree of green accounting procedures, whereas seven had a low level. It is recommended that banks increase their green accounting procedures in order to realize their benefits. In addition, the data revealed that banks were more compliant with social accounting practices than with economic and environmental operations. However, it was determined that their compliance with environmental initiatives was low. This may be because the banking industry is not as environmentally sensitive as the industrial and pharmaceutical industries. In the coming years, it is recommended that banks embrace the green concept and expand their compliance with environmental operations.

When considering the implementation of this study, the Central Bank may be able to get an idea of how banks comply with GARP and make policies. As well as Helps to increase the transparency level and can identify the level of consideration on GARP. Further, Future scholars can get an idea of how to develop the index by referring to this study.

The researcher has noted certain restrictions with this study. This study's scope was restricted to assessing green accounting procedures among Sri Lanka's central bank-licensed commercial banks and all listed banking institutions in the CSE. Additionally, this survey only included domestic banks which consisted of the selected Sample. The metrics employed in this study to measure economic, social, and environmental disclosures were measured according to the guidelines of GRI. However, the GARI guideline, which has been in place since 2018, was utilized in the study. Companies had been utilizing the G3 framework up until that point. Since the study concentrated on 62 total criteria over six years on the sample of 24 banks, it was challenging to gather qualitative data using a quantitative scoring approach. Furthermore, only the extent of compliance with the practices may well be considered in this study; the quality of green accounting GARP has not been taken into consideration.

REFERENCES

Carandang, J. C., & Ferrer, R. C. (2020). Effect of environmental accounting on financial performance and firm value of listed mining and oil companies in the Philippines. *Asia-Pacific Social Science Review*, 20(1).

Dissanayake, D., Tilt, C., & Xydias-Lobo, M. (2016). Sustainability reporting by publicly listed companies in Sri Lanka. *Journal of Cleaner Production*, 129, 169-182.

Ingumba, K. R., & Nairobi, U. O. (2017). The Relationship Between Environmental Accounting And Reporting Practices And Profitability Of Manufacturing Firms Listed On The Nairobi Securities Exchange. 43.

L Lako, A. (2018). Conceptual framework of green accounting. *Accounting*, 60-66.

Makori, D. M., & Jagongo, A. (2013). Environmental accounting and firm profitability: An empirical analysis of selected firms listed in Bombay stock

exchange, India. *International Journal of Humanities and Social Science*, *3*(18), 248-256..

Lalon, R. M. (2015). Green banking: Going green. *International Journal Of Economics, Finance and Management Sciences, 3*(1), 34-42.

Nuwanthika Gunawardhana, B. G. B. (2020). Determinants of Green Accounting Practices Among the Banking Entities in Sri Lanka (Doctoral dissertation).

Rakiv, M., Islam, F., & Rahman, R. (2016). Environmental accounting reporting disclosure and company profitability: A case study on listed manufacturing companies of Bangladesh. *International Journal of Ethics in Social Sciences, 4*(2), 21-30.

Sulaiman, M., Abdullah, N., & Fatima, A. H. (2014). Determinants of environmental reporting quality in Malaysia. *International Journal of Economics, Management and Accounting, 22*(1).

THE IMPACT OF INTELLECTUAL CAPITAL ON CORPORATE SUSTAINABLE GROWTH: EVIDENCE FROM LISTED COMPANIES IN SRI LANKA

Banneheka, B.M.A.M[1], Uluwatta, K.[2], Mendis, M.O.S.[3]

[1,2,3,]*Department of Accountancy, Faculty of Business Studies & Finance, Wayamba University of Sri Lanka*
[1]*ayesha21madhubhashini@gmail.com,* [2]*uluwatta@wyb.ac.lk,* [3]*oshani@wyb.ac.lk*

ABSTRACT

Companies' ultimate goal is to increase the wealth of their shareholders. To achieve this, the company should maintain a competitive marketplace. To stay competitive, a company should invest in both physical and intangible resources. Intellectual capital is a key value driver that helps to assure a business's long-term success. Making sure that the company works smoothly and achieves sustainable growth becomes the most essential part of resource management. This study's goal is to determine how intellectual capital affects long-term company success, with a focus on publicly traded companies on the Colombo Stock Exchange (CSE). Over seven years, from 2014 to 2019, the data for this study were taken from annual reports and gathered using pertinent websites for the chosen 164 listed companies. Van Hon's corporate sustainable growth model was used to calculate corporate sustainable growth. Intellectual capital was determined using the Modified Value-Added Intellectual Capital (M-VAIC) model. In this study, the effect of intellectual capital on long-term company growth was estimated using descriptive statistics, correlation analysis, and regression statistical approaches. The results of the regression analysis show that intellectual capital significantly enhances the long-term growth of corporations. The research's conclusions concur with those of Mukherjee and Sen's 2019 paper, Intellectual Capital and Business Sustainable Growth: The Indian Evidence. the M-VAIC Model is applied. It significantly affects the long-term expansion of businesses. In a framework of resource allocation that is evolving, especially in Sri Lanka, this study offers crucial evidence. In order to optimize their wealth and long-term growth, investors and financial managers will benefit from this research's guidance in making smarter financial decisions. This study also has practical ramifications because it will help end users comprehend how intellectual capital affects a company's long-term growth.

Keywords: Corporate Sustainable Growth, Intellectual Capital, M-VAIC

1. INTRODUCTION

During the past few decades, academics and professionals have been more and more interested in intellectual capital and how it affects a company's financial performance, market value, competitive advantage, innovations, and long-term growth. Intellectual capital, which focuses on personnel, expertise, and intellectual assets, ensures company growth in the knowledge-based economy. (Pulic, 2000).

Identification and measurement of IC are difficult; however, the concept has evolved over the last two decades and is gaining popularity in the business world (Stahle et al., 2011). Value creation is the process by which any business can achieve long-term growth. It is possible to do so using a variety of resources.

The value creation of intellectual capital is still hidden since the financial statement is not feasible enough to disclose business value, even though the manufacture of things is no longer the source of economic value. (Aruppala, et al., 2015; Stahle et al., 2011) In addition to the book value, there is an excess that generates value. An examination of the hidden value that is not shown by financial statements has been motivated by the discrepancy between the market value and book value of many companies (Maditinos et al., 2011).

Human capital, structural capital, and relational capital are the three components of intellectual capital. There is another perspective that has five dimensions of IC in addition to the above-mentioned three dimensions. It includes Innovation Capital and Process Capital. Today's businesses are more on training their employees, maintaining a separate department called Research and Development to find innovative products and add new features through new techniques, and giving priority to customer satisfaction while developing long-term relationships with them that can be seen in almost all larger-scale companies to achieve sustainable growth.

Previous studies have shown a strong correlation between intellectual capital and a company's long-term performance. Learn more about the effect of IC on CSG from listed firms on the Colombo Stock Exchange with the help of this study's objective.

There is little evidence in the literature from a developing nation like Sri Lanka in compared to their enormous contributions. Also, these studies on intellectual property and financial success across different businesses were carried out (Kehelwalatenna et al., 2010; Aruppala, et al., 2015; Jayasooriya and Gunawardana, 2016; Lakshan and Jayawickrama, 2020). The effect of IC on the financial performance of businesses in the hotel, manufacturing, finance, banking, and non-finance sectors has been thoroughly investigated by Sri Lankan academics.

The study's main research problem is to determine whether intellectual capital has an impact on a firm's corporate sustainable growth in Sri Lanka.

The research is guided by the following research questions.

Q1. What is the impact of intellectual capital on corporate sustainable growth among listed companies in Sri Lanka?

Q2. What is the impact of capital employed on corporate sustainable growth among listed companies in Sri Lanka?

Q3. What is the impact of human capital on corporate sustainable growth among listed companies in Sri Lanka?

Q4. What is the impact of structural capital on corporate sustainable growth among listed companies in Sri Lanka?

Q5. What is the impact of relational capital on corporate sustainable growth among listed companies in Sri Lanka?

The study's primary objective is;

- To examine the relationship between IC and corporate sustainable growth among listed companies in Sri Lanka.

The secondary objectives of the research are;

1. To examine the impact of capital employed on corporate sustainable growth among listed companies in Sri Lanka.
2. To study the impact of human capital on corporate sustainable growth among listed companies in Sri Lanka.
3. To identify the impact of structural capital on corporate sustainable growth among listed companies in Sri Lanka.
4. To examine the impact of relational capital on corporate sustainable growth among listed companies in Sri Lanka.

There is inconclusive evidence related to IC and corporate sustainable growth from global cases. Furthermore, (Mukherjee and Sen 2019; Xu et al., 2020; Xu and Wang 2018) studies on IC and corporate sustainable growth in a global context. As a result, this study has empirical significance.

2. LITERATURE REVIEW

According to Riahi-Belkaoui (2003), intellectual capital is a strategic asset that has the capacity to link IC and business success.

Similarly, Mukherjee and Sen (2019) stated that IC represents a collection of strategic assets that direct business toward growth and ultimate success. Furthermore, (Ovechkin *et al.*, 2020) mentioned that Intangibles are the core source of the production process that plays a significant role in the modern knowledge-based era.

In literature, there are many definitions available for defining sustainable growth. Xu and Wang (2018) defined sustainable growth as the ability to reach the growth of a business without borrowing funds and only using retaining profit. Mukherjee and Sen (2019,) defined sustainable growth as the firm can maintain future benefits using sustained profit. Sustainable growth is the continuous value enhancement of a firm (Xu *et al.*, 2020).

Xu et al. (2020) used a sample of listed agriculture companies in China's Shanghai and Shenzhen A-share markets from 2009 to 2018 to study the Effect of IC Efficiency on Corporate Sustainable Growth-Evidence from Smart Agriculture. The results demonstrate that capital employed efficiency and human capital employed efficiency have little impact on non-high tech agriculture enterprises but have a strong beneficial impact on corporate sustainable growth.

Mukherjee and Sen (2019) study IC and Business Sustainable Growth: The Indian Evidence using the M-VAIC model. It significantly affects the long-term expansion of businesses. Additionally, the results demonstrate that physical capital, relational capital, innovation capital, and process capital all significantly contribute to the explanation of long-term company growth.

390 manufacturing enterprises listed on the Korean Stock Exchange between 2012 and 2016 were used by Xu and Wang (2018) to study the evidence of IC, Financial Performance, and Companies' Sustainable Growth from the Korean Manufacturing Industry. IC has a favourable effect on businesses' financial performance and sustained growth, according to Xu and Wang (2018). Moreover, findings demonstrated a positive relationship between physical capital, human capital, and relational capital and business success and sustainable growth.

Data from 90 listed Chinese and Pakistani companies was collected between 2010 and 2017 to conduct a study of Chinese and Pakistani firms to determine the impact of competitive advantage on sustainable growth and Development. He evaluated Competitive Advantage as a mediating variable between them as well as the direct association between IC and Sustainable growth. The findings demonstrated that IC significantly influences the SG of Chinese and Pakistani enterprises.

Comparing the sectors of agriculture, tourism, and renewable energy, (Xu et al. 2021) conducted study on the relationship between business sustainability and IC efficiency. Results indicate that only renewable energy firms in the whole sample have a significantly favorable impact on corporate sustainable growth in terms of capital utilized efficiency, intellectual capital efficiency, and its components. M-VAIC method is used to measure IC.

$$MVAIC = CEE + ICE \text{ --(1)}$$
$$ICE = HCE + SCE + RCE \text{ ---(2)}$$
$$CEE = VA/CE \text{ --(3)}$$
$$HCE = VA/HC \text{ ---(4)}$$
$$SCE = SC/VA \text{ --(5)}$$
$$RCE = RC/VA \text{ ---(6)}$$

CEE: capital employed efficiency
ICE: intellectual capital efficiency
HCE: human capital efficiency
SCE: structural capital efficiency
RCE: relational capital efficiency
CE: capital employed by the equity of the owner
HC: human capital represents by salaries of employees
SC: structural capital represents by management expenditures
RC: relational capital represents by sales expenditures.

3. METHODOLOGY

A deductive approach and quantitative; archival research strategy was used throughout the study. For this study, the population was 281 listed companies with 4,142,575,868,156 market capitalization as of 2nd September 2021.

The Morgan table was used as the source of the 164 listed companies that made up the study's sample, which was chosen at random. In the six years from 2014 to 2019, this study gathered information from annual reports. Leverage and company size were the study's control variables.

CEE: Capital Employed Efficiency

HCE: Human Capital Efficiency

SCE: Structural Capital Efficiency

RCE: Relational Capital Efficiency
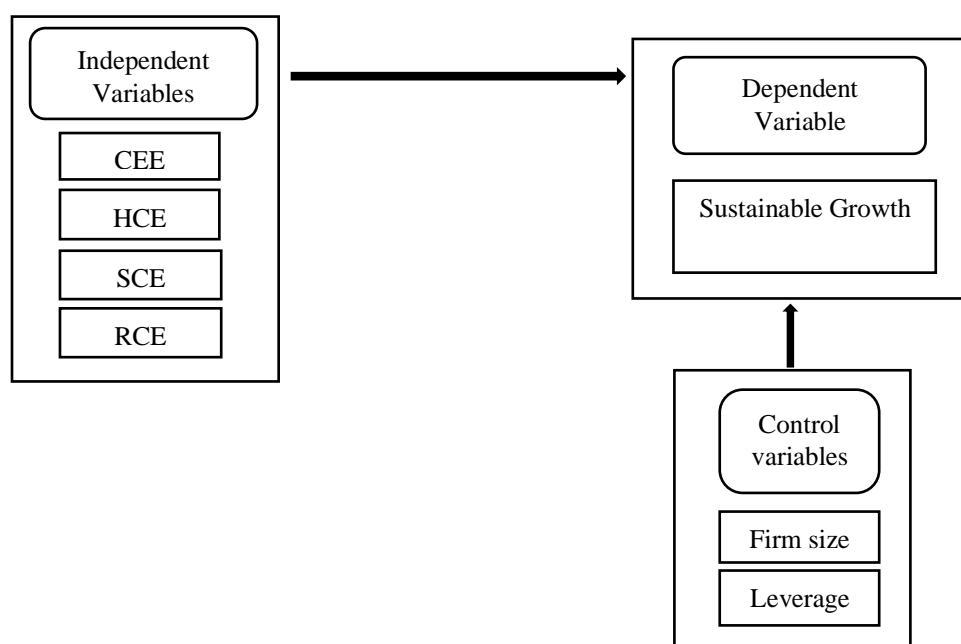
Figure 1. Conceptual Framework

The study's hypotheses were predicated on the notion that IC influences corporate sustainable growth. Empirical research suggests that there is a substantial positive link between IC and CSG (Xu and Wang 2018; Lu et al., 2021). By taking into account the prior findings, the following principal hypotheses are offered for this study:

H1: There is a significant positive effect of capital employed on corporate sustainable growth.

H2: There is a significant positive effect of IC on corporate sustainable growth.

H2a: There is a significant positive effect of human capital on corporate sustainable growth.

H2b: There is a significant positive effect of structural capital on corporate sustainable growth.

H2c: There is a significant positive effect of relationship capital on corporate sustainable growth.

These hypotheses were tested using descriptive statistics, correlation analysis, and regression analysis.

Table 1 depicts the sectors and the sum of listed corporations in the sample.

Table 1. Sectors and the total number of companies in sectors

Sector	Total companies in the sector	Total companies in the sample
Energy	02	01
Material	21	13
Capital Goods	29	20
Commercial and professional	05	04
Transportation	03	02
Automobiles and components	01	01
Consumer durables and apparel	12	06
Consumer service	36	20
Retailing	13	06
Food and staples retailing	04	03
Food, beverage, tobacco	47	24
Household and personal products	02	02
Healthcare equipment and service	08	05
Banks	12	06
Diversified financials	46	31
Insurance	10	06
Telecommunication service	02	01
Utilities	08	03
Real estate	20	10

Source: CSE.lk

4. FINDINGS AND DISCUSSION

The STATA econometrics programme was used to conduct the analysis. The central tendency of the model, or how the sample data is distributed from the range of minimum to maximum of the variables, was identified in the descriptive statistics portion. The study's descriptive data are displayed in Table 2.

The model as a whole is significant, as shown by the P-value of 0.003. Due to P-value being less than 5%, this is the case. The variances of the variables Capital Employed (CE), Human Capital (HC), Structural Capital (SC), Relationship Capital (ER), and Sustainable Growth (SG) account for 53% of the coefficient of determination's (R-

Square) value, with the remaining 47% explained by a variable that was not examined in this study.

Table 2: Descriptive Statistics of the Dependent and Independent Variables

Variable	Obs.	Mean	Std. Dec.	Min	Max
Capital Employed	920	0.40	2.85	(16.78)	76.53
Human Capital	920	8.63	31.48	(70.14)	297.64
Structural Capital	920	0.62	2.67	(27.93)	51.93
Relational Capital	920	0.37	2.46	(15.73)	55.13
Sustainable Growth	920	0.10	0.36	(3.17)	7.78
Firm size	920	20,421.61	76,223.90	1,342.21	962,350.50
Leverage	920	(0.28)	21.24	(643.87)	1.63

Table 3: Regression table

	Coefficient	Std. Err.	t	P > t
CEE	0.143	0.004	0.790	0.012
SCE	0.131	0.000	2.270	0.023
HCE	0.120	0.005	0.160	0.030
RCE	0.013	0.005	0.220	0.824
cons	0.091	0.013	6.920	0.698

Table 3 depicts the regression results. The hypotheses are tested as follows;

H1: There is a significant positive effect of Capital Employed on Corporate Sustainable Growth.

According to the findings, capital employed had a positive significant effect on corporate sustainable growth at a 5% level; as a result, a 1-unit increase in capital employed efficiency translates in a 0.143-unit rise in corporate sustainable growth. As a result, the alternative hypothesis is accepted and the null hypothesis is rejected.

H2: There is a significant positive effect of Intellectual Capital on Corporate Sustainable Growth.

By analyzing sub hypothesis results there is a significant positive effect of IC on SCG.

H2a: There is a significant positive effect of Human Capital on Corporate Sustainable Growth.

The Human Capital Efficiency Index score is 0.131, and the coefficient is positive (P = 0.023). Under the 0.05 level of significance, corporate sustainable growth has a significant positive effect. Hence, a 1-unit increase in human capital efficiency results in a 0.131-unit rise in corporate sustainable growth. The null hypothesis is disproved by the findings.

H2b: There is a significant positive effect of Structural Capital on Corporate Sustainable Growth.

As revealed by the beta coefficient value and P-value of ($\beta = 0.120$, P value = 0.030), Structural Capital Efficiency had a positive significant effect on Corporate Sustainable Growth at a 5% significant level. As a result, a one-unit rise in Structural

Capital resulted in a 0.120-unit increase in Corporate Sustainable Growth. As per the results, null hypothesis is rejected.

H2c: There is a significant positive effect of Relational Capital on Corporate Sustainable Growth.

As revealed by the beta coefficient value and P-value of (β= 0.013, P value = 0.824), Relationship Capital Efficiency had a positive insignificant effect on Corporate Sustainable Growth at a 5% significant level. As per the results null hypothesis is accepted due to the P-value being more than 0.05.

The multicollinearity assumption says that there is no relationship between the independent variables of the study. Multicollinearity occurs when the independent variables are significantly associated with one another. Using a matrix of correlations between the separate variables is the most basic technique to test the amount of multicollinearity.

Table 4: Multicollinearity Test

	SGR	CEE	SCE	HCE	RCE	F. ASSET	LEVERAGE
SGR	1						
CEE	-0.0258	1					
SCE	0.0053	-0.0045	1				
HCE	0.075	0.0028	0.0269	1			
RCE	0.006	0.0022	-0.3146	0.0018	1		
F. ASSET	0.0372	-0.0018	0.0082	-0.0234	-0.0094	1	
LEVERAGE	-0.0033	0.0026	-0.0025	0.0004	0.0021	0.0132	1

The results shown in table 4 has taken by correlation matrix for all the variables. According to the results, there is a statistically significant relationship between some variables. When looking for multicollinearity, a correlation of more than 80% between independent variables is normally required. This indicates that the data is not multicollinearity, as all variables correlate less than 80%. The normality and multicollinearity tests are the free tests for assessing the fundamental assumptions of regression analysis that must be satisfied before estimating the model. The Random effect model was used to regress the panel diagnostic tests, including heteroscedasticity, autocorrelation, and cross-sectional dependency, on balanced panel data.

5. CONCLUSION

Based on the regression results, the coefficient of determination, $R^2 = 0.532$, indicates that the model explains nearly all of the variations in the dependent variable. That is, the independent variables account for 53.2% of the variability in corporate sustainable growth. According to the regression model, IC has a significant impact on corporate sustainable growth in Sri Lankan listed companies.

The study's findings add to the body of knowledge on IC and corporate sustainable growth by revealing the impact of IC and its components on corporate sustainable growth in Sri Lanka. This study provides a general framework for future research by researchers and management. The first beneficiaries of this study will be the management who will gain new insights into the factors that influence corporate sustainable growth within their organizations. It aids in understanding resource allocation decisions and long-term planning. It also provides insight measures about the value of human resources to ensure sustainable growth, which is useful for corporate managers making human capital decisions in the competitive business world.

This study only considered four components of Modified Value-Added Intellectual Capital to measure IC, but more components, such as Research and Development Efficiency and Process Efficiency, could be added. This study only used secondary data, but it could be expanded to include both primary and secondary data. As a result, researchers will be able to form a more accurate and reliable opinion about the impact of IC on corporate long-term growth.

The study was concerned only with the period from 2014 to 2019. So future researchers can do research in the future by expanding the sample and collecting data for more than seven years. Also, they can do research by using various sectors of Colombo Stock Exchange (CSE). The study can expand to reach the impact of intellectual capital on small and medium scale enterprises. Also, researchers can add a competitive advantage as a mediating variable for this study.

And they can add various measurements to measure the dependent variables. To measure intellectual capital can be done by adding more components of Modified Value-Added IC like Innovational Capital and Process Capital. This study concerned only secondary data but it can be expanded using both primary and secondary data. By that, they will be able to get a better and more reliable opinion about the impact of IC on corporate sustainable growth.

REFERENCES

Aruppala, D., Wickramasinghe, V. and Mahakalanda, I. (2015) 'Intellectual capital and financial performance in Sri Lankan Banks', *6th International Conference on Business & Information (ICBI – 2015)*, (January), pp. 37–49.

Campisi, D. and Costa, R. (2008) 'A DEA-based method to enhance intellectual capital management', *Knowledge and Process Management*, 15(3), pp. 170–183. doi: 10.1002/kpm.312.

Herath, M. N. and Perera, P. (2021) 'Reporting Intellectual Capital in Annual Reports : Evidence from Sri Lanka', (June), pp. 0–1.

Herath, M. N., & Perera, P. (2021). Impact of firm characteristics on intellectual capital disclosure: Evidence from Sri Lanka. *6th International Conference on Contemporary Management (ICCM 2021),* Jaffna, Sri Lanka..

Jayasooriya, S. D. and Gunawardana, K. D. (2016) 'Managerial Perception of

Intellectual Capital Disclosure Practices of Listed Companies in Sri Lanka', *International Journal for Innovation Education and Research*, 4(12), pp. 206–214. doi: 10.31686/ijier.vol4.iss12.78.

Joshi, M., Cahill, D., Sidhu, J., & Kansal, M. (2013). Intellectual capital and financial performance: an evaluation of the Australian financial sector. Journal of intellectual capital, 14(2), 264-285.

Kamaluddin, A. and Rahman, R. A. (2013) 'The intellectual capital model: the resource-based theory application', *International Journal of Learning and Intellectual Capital*, 10(3–4), pp. 294–313. doi: 10.1504/IJLIC.2013.057427.

Lu, Y., Li, G., Luo, Z., Anwar, M., & Zhang, Y. (2021). Does intellectual capital spur sustainable competitive advantage and sustainable growth?: A study of Chinese and Pakistani firms. Sage Open, 11(1), 2158244021996702.

Mačerinskienė, I. and SURVILAITĖ, S. (2019) 'INTELLECTUAL CAPITAL IN THE LISTED COMPANIES OF THE BALTIC STATES', pp. 46–63.

Maditinos, D. *et al.* (2011) 'The impact of intellectual capital on firms' market value and financial performance', *Journal of Intellectual Capital*, 12(1), pp. 132–151. doi: 10.1108/14691931111097944.

Mukherjee, T., & Sen, S. S. (2019). Intellectual capital and corporate sustainable growth: The Indian evidence. Asian Journal of Business Environment, 9(2), 5-15.

Pulic, A. (2000) 'VAIC^{TM} – An Accounting Tool for Intellectual Capital Management', *International Journal Technology Management*, 20(5/6/7/8), pp. 702–714.

Ramanayake, S. S., (2022). National Innovation Systems and Technological Innovation Systems for Sustained Growth: A Way Forward to Sri Lanka. In *Innovation Systems, Economic Development and Public Policy* (pp. 105-130). Routledge India.

Ramezan, M. (2011) 'International Journal of Information Management Intellectual capital and organizational organic structure in knowledge society : How are these concepts related ?', *International Journal of Information Management*, 31(1), pp. 88–95. doi: 10.1016/j.ijinfomgt.2010.10.004.

Riahi-Belkaoui, A. (2003) 'Intellectual capital and firm performance of US multinational firms:A study of the resource-based and stakeholder views', *Journal of Intellectual Capital*, 4(2), pp. 215–226. doi: 10.1108/14691930310472839.

Sta˚hle, P., Sta˚hle, S. and Aho, S. (2011) 'Value added intellectual coefficient (VAIC): A critical analysis', *Journal of Intellectual Capital*, 12(4), pp. 531–551. doi: 10.1108/14691931111181715.

Xu, J., & Li, J. (2022). The interrelationship between intellectual capital and firm performance: evidence from China's manufacturing sector. Journal of

Intellectual Capital, 23(2), 313-341.

Xu, J., & Wang, B. (2018). Intellectual capital, financial performance and companies' sustainable growth: Evidence from the Korean manufacturing industry. Sustainability, 10(12), 4651.

Xu, X. L., Li, J., Wu, D., & Zhang, X. (2021). The intellectual capital efficiency and corporate sustainable growth nexus: Comparison from agriculture, tourism and renewable energy sector. Environment, Development and Sustainability, 1-19.

Xu, X. L., Chen, H. H. and Zhang, R. R. (2020) 'The Impact of Intellectual Capital E ffi ciency on Corporate Sustainable Growth-Evidence from Smart Agriculture in China', (Ic), pp. 1–15.

Ze´ghal, D. and Maaloul, A. (2010) 'Analysing value added as an indicator of intellectual capital and its consequences on company performance', 11(1), pp. 39–60. doi: 10.1108/14691931011013325.

IMPACT OF FINANCIAL PLANNING ON ENTERPRISE RISK MANAGEMENT IN SMALL AND MEDIUM ENTERPRISES (SMES) IN SRI LANKA: AN EMPIRICAL STUDY IN COLOMBO DISTRICT IN SRI LANKA.

Bandara, A.M.M.D.[1], Karunananda, U.G.A.C.[2]

[1,2]*Department of Accountancy, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka*
[1]*ammdbandara1996@gmail.com,* [2]*ayoma@wyb.ac.lk*

ABSTRACT

Today, financial planning has become important since inadequate financial planning has caused several businesses to shut down their businesses. Accordingly, many past studies have found which are conducted to identify the financial planning in Small and Medium Enterprises (SMEs). SMEs are significantly contributing to the growth of the economy and the backbone of any country and play a huge role that should be considered. Although SMEs are growing in high, they face many challenges that they are led to work against their successes. Enterprise Risk Management (ERM) also becomes an important tool just because an organization can survive for long period by managing the risk that affects it. It is hard to find the research, which was done to show the relationship between financial planning and ERM in SMEs. So, this study is to fulfill the research gap between financial planning and ERM in SMEs in Sri Lanka. The general objective of this study is "To identify the impact of financial planning on ERM in SMEs in the Colombo district". Accordingly, the main independent variable of the study is financial planning and the main dependent variable is ERM. Financial planning includes Budgeting, Preparation of Financial Statements, and Financial Analysis while ERM includes Financial Risk Management and Inventory and Production Risk Management. This study is comprised with data gathered from questionnaires from 100 SME owners and was analyzed using SPSS. To test the hypothesis, the researcher has conducted regression analysis and identified there has a positive impact of financial planning on ERM in SMEs in the Colombo district. On the other hand, according to correlation analysis, all independent variables were significantly and positively correlated with ERM in SMEs in the Colombo district. So that the researcher recommended increasing the awareness of financial planning among SME owners in other districts as well in this study, the researcher has examined only three dimensions of financial planning and two dimensions in ERM. So that future researchers can suggest more dimensions for Financial Planning and ERM as well.

Keywords: ERM, Financial Planning, SMEs

01. INTRODUCTION

It has recently been observed that inadequate financial planning has caused several business firms to struggle with the challenge of underinvestment or underinvested assets (Okibo, 2016). Internal and external environments are rapidly changing and they do create uncertainties. Nowadays best example of that is the COVID-19

pandemic. So, with that, Enterprise Risk Management (ERM) has become an important tool because if an organization can manage the risk of their organisation, it will be a value addition. In SMEs, risk is a major threat that they are facing (Yusuf & Dansu, 2013). In this study, the researcher aim to study the impact of financial planning on Enterprise Risk Management in Small & Medium Enterprises using a selected sample from Colombo District in Sri Lanka.

1.1 Background of the Study

The existing body of literature revealed limited studies have been carried out to find the relationship between financial planning and firm performance of SMEs in the context of Sri Lanka. (Karunananda & Jayamaha, 2011). To show the relationship between ERM and firm performance in SMEs.

If any firm can manage the risk it helps to create a competitive advantage for the firm. (Yakob. S, Hafizuddin.S et al, 2019). So, by doing this type of research, SMEs can get the benefits of competitive advantages. Then the need for study in this area arises. So according to the literature review and other concerns we can see, there is a need of doing this type of study, and doing a study about this topic will be valuable. It will be beneficial for future researchers as well.

1.2 Research Problem

In Sri Lanka, the last update of statics related to the SMEs is in the year of assessment 2013/14 in the source of Non-agricultural economic activities in the Sri Lanka economic census. Other than that, in 2020 they have surveyed to identify the impact of COVID-19 on SMEs. The Non-agricultural Economic Activities in Sri Lanka Economic Census (2013/14), indicates that the contribution to the GDP is high in Sri Lanka.

Table 1: Number of Establishments in District

District	Total	Micro %	Small %	Medium %	Large %
Colombo	135,998	85.0	11.7	2.5	0.8
Gampaha	127,734	91.3	7.1	1.3	0.3
Kaluthara	60,717	93.0	5.9	1.0	0.2

Source: Non-agricultural Economic Activities in Sri Lanka Economic Census (2013/14)

According to table 1, the Colombo district represents the highest value of the number of establishments and it is 135,998. So, in this study SMEs in the Colombo district have chosen to identify the impact of financial planning on ERM since it represents the highest establishments.

Accordingly, the specific research problem of this research is; **"What is the impact of Financial Planning on ERM in Small and Medium Enterprises (SMEs) in the Colombo district".** This study considered Budgeting, Preparation of Financial Statements and Financial Analysis as independent variables while Financial Risk Management and Inventory and Production Risk Management as dependent variables.

1.3 Research Questions

With reference to the research problem, the following research questions have been identified to answer the research problem.

   a) Does Budgeting impact Enterprise Risk Management in the SMEs in Colombo District?
   b) Is there an impact of the Preparation of Financial Statements on Enterprise Risk Management in the SMEs in the Colombo District?
   c) What is the impact of Financial Analysis on Enterprise Risk Management in the SMEs in the Colombo District?

1.4 Research Objectives

The general objective of this study is "To identify the impact of Financial Planning on ERM in SMEs in the Colombo district". So with that general objective, the specific objectives that the researcher has identified are as follows.

   a) To identify the impact of Budgeting on Enterprise Risk Management in the SMEs in the Colombo District.
   b) To examine the impact of the Preparation of Financial Statements on Enterprise Risk Management in the SMEs in Colombo District.
   c) To observe the impact of Financial Analysis on Enterprise Risk Management in the SMEs in Colombo District.

02. LITERATURE REVIEW

As Ariyo, et al., (2020) described, financial planning refers to the process of developing a solid and detailed target for an organization's functions, departments, and operations. According to Atieno, (2013), financial planning is required to monitor and indicate a company's financial capability over time. Further, it has indicated the majority of SMEs engaged in financial planning practices such as periodical budget estimations, activity-based budgeting, preparation of financial statements, and financial analysis. Financial planning is a fundamental tool for SMEs, regardless of their economic activity (Arena, Arnaboldi, & Azzone, 2010). Enterprise risk management is quickly becoming the new minimum standard, and it may well be the key to survival for many companies (Tamoðiûnienë & Saveuk, 2007). According to the COSO (Committee of Sponsoring Organizations of the Treadway Commission), Enterprise Risk Management (ERM) is a process effected by an entity's board of directors, management, and other personnel applied in strategy setting and across the enterprise designed to identify potential events that may affect the entity and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives. According to past studies, many researches show the relationship between financial planning and firm performance and also that shows the relationship between ERM and firm performance, but no research was done to show the relationship between financial planning and ERM in SMEs. So, this study is to fulfill the research gap between financial planning and ERM in SMEs in Sri Lanka.

2.1 Small and Medium Enterprises (SMEs)

The definition of Small and Medium Enterprises is varied from country to country. There isn't a standard definition for all countries. According to (White Paper, 2002), the definition of SMEs in Sri Lanka is "**The enterprises with assets value not exceeding Rs. 50 million excluding land and buildings.**" Further, it is explained that small-scale enterprises are enterprises an asset value is not exceeding Rs. 20 million excluding land and building and medium-scale enterprises are enterprises the asset value is not exceeding Rs. 50 million excluding land and building. Karadag, (2015) noted that SMEs account for a sizable portion of the economy and are widely regarded as the engines of socioeconomic development in all countries. Further, it has been said that the importance of SMEs in social and economic development has been widely acknowledged in both developed and developing economies.

2.2 Financial Planning and ERM in SMEs

According to Dunn, (2011), small business failures and discontinuances are common, particularly in the few years after launch. Poor management, particularly poor financial planning and undercapitalization, is a frequently cited cause of small business failure. If the financial planning is outdated, then the financial planning remains disconnected from risk management. So, executives need to conduct dynamic financial planning as a top-down, strategic examination addressing the drivers and core material risks of the organization Schmitz, (2012). Effective financial planning is an essential tool for achieving the main goals of the enterprise – profit maximization and cost enterprise (Azarenkova. G, Pasko.T, et al, 2017). Further in White Paper, (2002) it is said that poor finances and management during the life of the business cause issues for small and business owners. As Schmitz, (2012) reported, firms that generate greater value by managing core material risks will remain the exception rather than the rule until companies engage in dynamic financial planning and linking risk management to mid-term financial planning also allows a company's financial plans to be more transparent and precise.

When considering the literature relating to financial planning there are (Ariyo, Onileowo, & Oke, 2020), (Awang, et al., 2016), (Wijewardena & Zoysa, 2001), (Atieno, The relationship between financial planning and the financial performance of Small and Medium Enterprises in Nairobi city center Kenya, 2013), (Cheruiyot, Namusonge, & Sakwa, 2018), studies that were about to show the relationship between financial planning and firm performance. Ariyo, et al., (2020), addressed the factors under financial planning, cash budgeting, cash control, and risk management. They have used primary data and they were collected using well-designed questionnaires. To analyze the collected data, they used descriptive analysis-frequencies, inferential estimations-correlation, regression, and other post-estimation tests. The objective of Awang, et al., (2016) was to assess the acceptance level of Islamic finance by SMEs with the SMEs' Islamic financial planning application. They also used primary data and data gathered through survey questionnaires by using random sampling & questionnaires. SPSS is used to analyze the relationship between acceptance of Islamic finance and the application of Islamic financial planning among SMEs halal operators. In Wijewardena & Zoysa, (2001) study, the

independent variables of this study were financial planning and control and the dependent variable was the performance of SMEs while the independent variables of the study of Atieno, (2013) were Periodical Budget estimations, Preparation of Financial Statements, Business Performa creation, Activity-based budgeting, Financial Analysis, and the dependent variable was firm performance. In Cheruiyot, et al., (2018), primary data was collected using a questionnaire whereas secondary data was obtained from the Office of Controller of Budget, Office of the Auditor General and County Treasury Offices. The study has used both qualitative and quantitative data.

When considering the literature relating to enterprise risk management there are (Yakob. S, Hafizuddin.S et al, 2019), (Lukianchuk, 2015), (Jenya & Sandada, 2017), studies that show the relationship between enterprise risk management and firm performance. Yakob, et al., (2019) tested the effect of each element of ERM described under the COSO framework towards firm performance and indicated through multiple regression analysis, that ERM has a significant effect on firm performance while the independent variable of Lukianchuk, (2015) addressed, were auditor fees, quality score, board of director proportion and board structure since they could explain the volatility of cash flow and return on assets. According to Jenya & Sandada, (2017), the study was a quantitative research study that was carried out by sending structured questionnaires. The data has been zanalyzed by correlation and regression analysis and it further showed that the study provides evidence of a positive relationship between risk management dimensions and SMEs performance. There are some other studies that studied financial planning such as (Azarenkova. G, Pasko.T, et al, 2017), Schmitz, (2012) and also there are some other studies that studied enterprise risk management such as (Arena, Arnaboldi, & Azzone, 2010), (Nocco, Insurance, & Stulz, 2006). So almost all the previous studies were in a foreign context. The examples: (Adam, 2010) (Atieno & Musando Judith, 2013) (Ariyo, Onileowo, & Oke, 2020) (Awang, et al., 2016) (Cheruiyot, Namusonge, & Sakwa, 2018), (Lukianchuk, 2015), (Jenya & Sandada, 2017) (Okibo, 2016) (Wijewardena & Zoysa, 2001) (Yakob. S, Hafizuddin.S et al, 2019). In the Sri Lankan context, there was no research to show the relationship between financial planning and ERM in SMEs. There is research in Sri Lanka on financial practices and performance in SMEs (Karunananda & Jayamaha, 2011).

Although SMEs are growing speedily, they face a range of challenges that work against their progress. Lack of financial knowledge has been a major setback to SMEs' progress (Atieno & Musando Judith, 2013). According to past studies, many researches show the relationship between financial planning and firm performance and also that shows the relationship between ERM and firm performance, but no research was done to show the relationship between financial planning and ERM in SMEs. So, this study is to fulfill the research gap between financial planning and ERM in SMEs in Sri Lanka.

The relationship among variables is presented in the Conceptual Framework given below.

Independent Variable

Dependent Variable
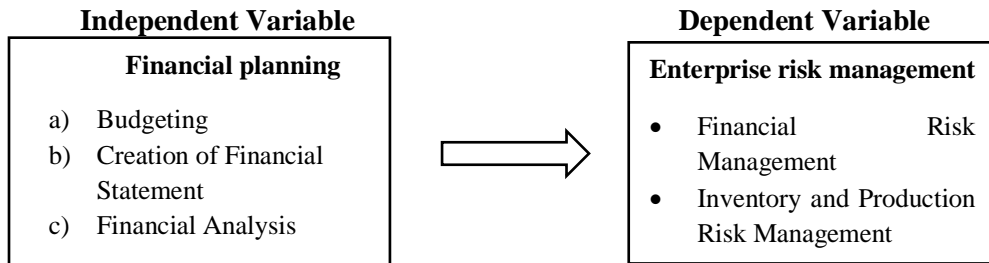
Figure 1: Conceptual Framework

Source: Author Constructed, 2022

The hypothesis that the researcher has developed to test the impact of independent variables on dependent variables are as follows.

H1: There is a positive impact of Budgeting on ERM of the SMEs in the Colombo District.

H2: There is a positive impact of the Preparation of Financial Statements on ERM of the SMEs in the Colombo District.

H3: There is a positive impact of Financial Analysis on ERM of the SMEs in the Colombo District.

03. METHODOLOGY

The main independent variable of the study is financial planning and the main dependent variable is ERM. Financial planning includes Budgeting, Preparation of Financial Statements, and Financial Analysis while ERM includes Financial Risk Management and Inventory and Production Risk Management.

The research philosophy of this study is positivism. Three hypotheses have been developed and tested by collecting data, which involved the deductive approach. Primary data is the mode of quantitative data taken for this study. Since the population is unpredictable due to the lack of reliable information, convenience sampling techniques have used to select the sample. To gather primary data well-structured questionnaire was used which were gathered from the Colombo District. The results of this study belong to cross-sectional studies. 100 responses out of 197 questionnaires from SME owners of the Colombo district have been analyzed by using SPSS software.

04. FINDINGS AND DISCUSSION

Table 2: Summary Results of Demographic Variables

Variable	Majority
Gender	Male
Age group	36-45
Education Qualification	Completed A/L
Business Experience	11-15 years
Average Monthly Income.	Between 100,000 to 150,000

According to table 2, the summary results of demographic variables in this study are; that the majority of SMEs' owners in the Colombo district are males and fall into the age group of 36-Also, the majority of respondents had completed A/L, many SMEs lie under 11-15 years of experience, and the majority of respondents earn between 100,000 to 150,000 average monthly income.

Table 3: Summary of Test Results

Test	Budgeting	Creation of Financial Statement	Financial Analysis	ERM
Cronbach's Alpha Value	0.761	0.844	0.799	0.764
KMO Value	0.728	0.797	0.704	0.743
Descriptive Statistics				
01.Mean Values	4.067	4.112	4.063	4.106
02.Standard Deviation	0.606	0.607	0.692	0.560
Pearson Correlation	0.692	0.620	0.730	1
Coefficient of Determination (R^2) = 65%				

Cronbach's Alpha values of all independent variables and the dependent variable are higher than the acceptable level of 0.7. So, this proves questions that are used to collect data are reliable. KMO values of all three independent variables are higher than 0.5. ERM is also higher than 0.5

When it comes to descriptive statistics, if the mean value is higher than 3.5, it means that the respondents are agreeing with the standards. If the standard deviation values are lower values or closer to 1, it means the spread is low and reliability is high. The mean values of all three independent variables were higher than 3.5. The mean value of ERM is also greater than 3.5 and standard deviations were closer to 1. It implies the responses don't have considerable variation from the mean values of the respective variable.

Table 4: Summary of Correlation Analysis

Pearson Correlation	Budgeting	Creation of Financial Statements	Financial Analysis	ERM
Budgeting	1	0.540	0.638	0.692
Creation of Financial Statements	0.540**	1	0.549	0.620
Financial Analysis	0.638**	0.549**	1**	0.730
ERM	0.692**	0.620**	0.730**	1

** Correlation is significant at the 0.01 level (2-tailed)

The correlation ranges from +1 to -1 and signs indicate the direction of the relationship. Correlation coefficient signs of all independent variables are positive, it indicates a strong positive relationship between financial planning and ERM. The R^2 value of this study is 0.65. It means 65% of the dependent variable (ERM) is

explained by the independent variable (Financial Planning). Only 35% is explained by other factors. Since it is more than 50% this model describes reasonably well.

Summary Tables of Regression Analysis

Table 5: Regression Analysis of ANOVA test

Mode		Sum of squares
1	Regression	20.310
	Residual	10.774
	Total	31.084

Source: Author Constructed, 2022

According to Table 5, the regression (explained sum of squares) is higher than the residual sum of squares. So, it means, independent variables are good to explain the dependent variable.

Table 6: Regression Analysis Summary

Mode		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	**Std. Error**	**Beta**		
1	(Constant)	0.736	0.263		2.804	
	Budgeting	0.286	0.075	0.309	3.788	0.000
	Preparation of Financial Statements	0.212	0.069	0.230	3.050	0.003
	Financial Analysis	0.329	0.067	0.407	3.407	0.000

Source: Author Constructed, 2022

Statistical Model $Y = 0.736 + 0.286X1 + 0.212X2 + 0.329X3 + U$

A statistical model was also developed based on coefficient values. According to Table 6, since all significant values are less than 0.05 ($p<0.05$) and beta values are positive, all three hypotheses developed by the researcher had tested and accepted in accordance with the regression analysis. In correlation analysis also all three hypotheses were accepted. It indicates that financial planning is having a positive impact on ERM in the SMEs in the Colombo district.

Hypothesis Testing

H1: There is a positive impact of Budgeting on ERM in SMEs in the Colombo District.

According to table 6, the significant value of the Budgeting is 0.000. Since it is less than 0.05 ($p<0.05$), there is a significant impact of Budgeting on ERM. The beta value of Budgeting is positive 0.286 and it means, there is a positive significant impact of Budgeting on ERM. So H1 is accepted.

H2: There is a positive impact of the Preparation of Financial Statements on ERM in SMEs in the Colombo District.

According to table 6, the significant value of the Preparation of Financial Statements is 0.003. Since it is less than 0.05 (p<0.05), there is a significant impact of the Preparation of Financial Statements on ERM. The beta value of Preparation of Financial Statements is positive 0.212 and it means, there is a positive significant impact of Preparation of Financial Statements on ERM. So H2 is accepted.

H3: There is a positive impact of Financial Analysis on ERM in SMEs in the Colombo District.

According to table 6, the significant value of the Financial Analysis is 0.000. Since it is less than 0.05 (p<0.05), there is a significant impact of Financial Analysis on ERM. The beta value of Financial Analysis is positive 0.329 and it means, there is a positive significant impact of Financial Analysis on ERM. So H3 is accepted.

05. CONCLUSION

This study examines the impact of financial planning on enterprise risk management in SMEs in Sri Lanka: with special reference to the Colombo district. So according to previous studies, the researcher has identified a gap between financial planning and ERM in SMEs in Sri Lanka. Since there was no research to find nationally or internationally on this research topic, by doing this study researcher can fulfill the gap and it will be helpful for future researchers as well.

The research problem was guided by three research questions and those are; does Budgeting impact ERM in the SMEs in Colombo District, does the Preparation of Financial Statements impact ERM in the SMEs in Colombo District, and does Financial Analysis impact ERM in the SMEs in the Colombo District.

Based on the above research questions the researcher has developed three research objectives. These are; to identify the impact of Budgeting on ERM in the SMEs in the Colombo District, to examine the impact of the Preparation of Financial Statements on ERM in the SMEs in the Colombo District, to observe the impact of Financial Analysis on ERM in the SMEs in the Colombo District.

The researcher has chosen the independent variable as Financial Planning while the dependent variable is ERM or simply it is about to identify the impact of Budgeting, Financial Statement Creation, and Financial Analysis on Financial Risk Management, Inventory Risk Management, and Production Risk Management.

Then the research design is developed to achieve the research objectives. It is a conceptual model that represents the structure of the research. According to that the research philosophy of this study is positivism. Three hypotheses have been developed and tested by collecting data, which involved the deductive approach. Primary data is the mode of quantitative data taken for this study. To gather primary data well-structured questionnaire was used. The researcher used the survey method to conduct the research and sent questionnaires to the selected research sample. The results of this study belong to cross-sectional studies. Cross-sectional studies collect data only once or for a short period.

The target population of this study is SMEs in the Colombo district. So based on that 100 SMEs in Colombo District were taken as the sample size by using convenience sampling techniques. Those responses have been used to analyze by using SPSS software. Descriptive statistics, correlation analysis, and regression analysis have been used. Reliability analysis and validity analysis were also done. Finally, the hypothesis was tested in accordance with the test results.

When comparing the results of the study and past studies, Awang et al., (2016), have focused on the acceptance level of Islamic finance and the application of Islamic financial planning by SMEs. They indicate that the above two factors are significantly correlated. Another study by Atieno (2013) was about how financial planning practices are being used by SMEs. Results indicated that those financial planning practices can impact positively firms' performance. The positive impact includes managing the risk also. So, it witnessed that there is a relationship between financial planning and risk. Ariyo et al., (2020) stated that financial planning and firm performance in SMEs as the others. But this study further focuses on risk management and financial performance. They have found that there is a positive relationship between risk management and the financial performance of SMEs. So as between cash budgeting and cash control. According to Wijewardena & Zoysa, (2001), the results revealed that greater comprehensiveness in both financial planning and control processes leads to the higher sales performance of firms.

Yakob et al., (2019) has reported how the performance of SMEs is affected by ERM. They have found that ERM has a significant effect on the performance of SMEs. Lukianchuk, (2015) showed the relationship between ERM and firm performance. Here they have indicated that gender doesn't matter to assess the firm performance. Jenya & Sandada, (2017) also stated the relationship between ERM and firm performance. They also indicate that there is a positive relationship between ERM and performance. So, there was no prior research done to fill the gap between financial planning and ERM in SMEs even in the Sri Lankan context.

Recommendation
If the financial planning is outdated, then the financial planning remains disconnected from risk management. So, executives need to conduct dynamic financial planning as a top-down, strategic examination addressing the drivers and core material risks of the organization Schmitz, (2012). Based on the findings and conclusions presented, financial planning can make a significant impact on ERM. So, the following recommendations are suggested.

Since financial planning can make an impact on ERM in SMEs in the Colombo district, the study suggests the application of financial planning in order to conduct risk management in SMEs. Further, the study recommends increasing the awareness of financial planning among SME owners in other districts as well. This can be done through awareness sessions targeting SME owners in Sri Lanka. So that they can have the opportunity to study financial planning in enterprises. Government should involve in this matter since SMEs are the backbone of an economy.

Azarenkova, et al., (2017) stated that planning is a process that transfers goals into plans and then sets priorities and methods to achieve them. It further says that it is the most substantial part of overall planning. Enterprise risk management is quickly becoming the new minimum standard, and it may well be the key to survival for many companies (Tamoðiûnienë & Saveuk, 2007). So, in the future, there will be more demand for an understanding of financial planning and ERM. Therefore, it can be recommended to other SMEs which are not doing financial planning to have a touch on commencing financial planning to survive.

This researcher has examined only three dimensions; Budgeting, Preparation of Financial Statements and Financial Analysis in financial planning, and two dimensions for ERM; Financial Risk Management and Inventory/Production Risk Management. So that future researchers can suggest more dimensions for Financial Planning and ERM as well. Further, future researchers can use more analytical tools than descriptive, correlation, and regression, and also, they can increase the sample size than 100. Finally, this study is focused only on SMEs in the Colombo district. So that future researchers can focus on SMEs in Sri Lanka or other large enterprises.

REFERENCES

Adam, R. (2010). Exploring the acceptance of enterprise resource planning systems by small manufacturing enterprises. 41-44.

Arena, M., Arnaboldi, M., & Azzone, G. (2010). The organizational dynamics of Enterprise Risk Management. *Accounting, Organizations and Society, 35*, 659-675.

Ariyo, C., Onileowo, T., & Oke, M. (2020). The impact of financial planning on the financial performance of small scale business firms in Ekiti state. *International Journal of Development Research, 10*(2), 33818-33826.

Atieno, M. J. (2013). The relationship between financial planning and the financial performance of Small and Medium Enterprises in Nairobi city center Kenya. 2-17.

Awang, M., Noor, M., Muhammad, J., Abdullah, A., Rahman, S., & Yahya, M. (2016). Acceptance and application of islamic financial planning among small and medium enterprises halal operator in peninsular of malaysia. *International E-Journal of Advances in Social Sciences, II*(6).

Azarenkova, G., Pasko, T., Golovko, O., & Kovalchuk, Y. (2017). Financial planning and improving of its methods. *Accounting and Financial Control, 1*(1).

Cheruiyot, M., Namusonge, G., & Sakwa, M. (2018). Effect of financial planning and budgeting practices on performance of county governments in kenya. *International journal of social sciences and information technology, IV*(VIII).

Jenya, B., & Sandada, M. (2017). Enhancing success of SMEs through risk enterprise management: Evidence from a Developing Country. *Pakistan Journal of Applied Economics, 27*(02), 173-188.

Karunananda, U., & Jayamaha, A. (2011). Financial Practices and Performance of Small and Medium - sized Enterprises in Sri Lanka. *Journal of Insuarance*.

Lukianchuk, G. (2015). The impact enterprise risk management on firm performance of small and medium enterprises. *European Scientific Journal, 11*(13), 408-425.

Nocco, B., Insurance, N., & Stulz, R. (2006). Enterprise Risk Management: Theory and Practice. *Journal of applied corporate finance, 18*(4).

Okibo, O. a. (2016). Effects Of Financial Planning Practices On The Growth Of Small Manufacturing Firms In Kisii County, Kenya. *4*(5), 33-48.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5 ed.). Harlow: Pearson Education.

Schmitz, J., & Wittenberg, A. (2012). Dynamic financial planning–Making enterprise risk management matter. Risk Journal 2012, 2, 20-27.

Tamoðiûnienë, R., & Saveuk, O. (2007). Risk management in Lithuanian organizations – Relation with internal audit and financial statements quality. *8*(No 4), 204–213.

White Paper. (2002). National Strategy for Small and Medium Enterprises Sector Development in Srilanka, Task force for Small and Medium Enterprise Sector Development Program.

Wijewardena, H., & Zoysa, A. D. (2001). The impact of Finacial Planning and control on performnce of SMEs in Australia. *Journal of Enterprising Culture, 9*(4), 353-365.

Yakob, S., Hafizuddin-Syah, B., Yakob, R., & Raziff, N. (2019). The Effect of Enterprise Risk Management Practice on SME Performance. *The South East Asian Journal of Management, 13*(2), 151-169.

Yusuf, T., & Dansu, F. (2013). SME, business risks and sustainability in Nigeria. *European Journal of Business and Social Sciences, 2*(9).

SACFIRE 2022

Department of Accountancy

Faculty of Business Studies and Finance
Wayamba University of Sri Lanka
Kuliyapitiya

T.P 037-2284214

www.sacfire.wyb.ac.lk